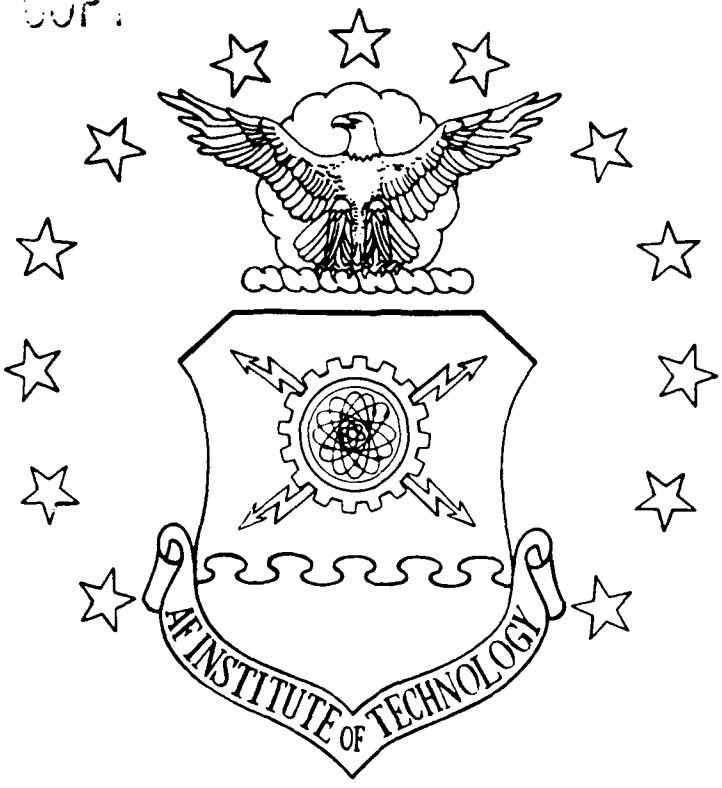

AN EVALUATION OF THE ACQUISITION MANAGEMENT PROFESSIONAL DEVELOPMENT PROGRAM AS A PROGRAM DIRECTOR CAREER MODEL

THESIS

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The opinions and conclusions in this paper are those of the author and are not intended to represent the official position of the DOD, USAF, or any other government agency.

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Presented to the Faculty of the School of Systems and Logistics
of the Air Force Institute of Technology
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In Partial Fulfillment of the
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Dwyer L. Dennis

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Abstract

This purpose of this research is to provide an evaluation of the Acquisition Management Professional Development Program (AMPDP) with respect to AFSC 0029, Program Director qualifications. The AMPDP is Air Force Systems Command's career model for the acquisition officer. The credentials outlined in the program are identified as the measurement variables to determine the required model. Using Officer Career Briefs of the current program directors, the actual model is constructed and a comparison with the required model is accomplished. The comparison, in light of 22 measurement variables, permitted the identification of meaningful differences between the two models. A program director composite career profile is also developed. The findings were that 8 out of 22 variables indicated meaningful differences and that some adjustment to the AMPDP should be considered.

AN EVALUATION OF THE ACQUISITION MANAGEMENT PROFESSIONAL DEVELOPMENT PROGRAM AS A PROGRAM DIRECTOR CAREER MODEL

I. Introduction

Background

Individuals familiar with current events or involved with defense acquisition are aware of the American public's criticism of weapon system procurement. A perception exists that Department of Defense (DoD) acquisition management is highly ineffective. Discoveries of spare-parts overpricing, poor quality, overruns, and excessive specifications of programs have fueled an intense scrutiny and corresponding distrust of the defense acquisition community (10:21). The DoD's credibility is in jeopardy. The Honorable James P. Wade, Jr., the former Assistant Secretary of Defense for Acquisition and Logistics, in his article "DoD Acquisition: What the Future Holds," quotes a Harris Poll stating that eighty-seven percent of those surveyed agreed that "There is too much waste in defense spending" (14:28). That overwhelming perception has been the catalyst for recent congressional and governmental initiatives mandating improvements in the procurement process. The defense acquisition workforce is the foundation of these improvement efforts. Improving the acquisition process is directly related to the availability and application of a sufficient, well-qualified, and professional workforce (14:28).

Attention has been focused on the program director, the individual in DoD having the overall acquisition responsibility for a major weapon system program. In response to the need for an acquisition cadre and to the direction of both Congress and the DoD, Air Force Systems Command (AFSC) developed and implemented the Acquisition Management Professional Development Program (AMPDP). The AMPDP's objective is to answer the management question of how to develop a program director, and thus provides a model of credentials required to successfully fulfill the responsibilities of the program director position.

Problem Statement

This research examines how adequately the AMPDP models the true professional development of an acquisition officer to the position of program director. It will determine the similarities and differences between the credentials held by current AFSC program directors and those required by the AMPDP. An analysis of this comparison will help determine whether the AMPDP is an appropriate development model and what changes should be considered.

Investigative Questions

To determine the AMPDP's adequacy as a professional development model, the following questions will be researched:

1. What program director credentials does AFSC outline in the AMPDP? What is the requirements model?

2. What are the significant credentials possessed by current AFSC program directors? What is the actual model?
3. How does the AMPDP requirements model compare to the actual model?

Justification

The AMPDP has been in effect for over three years. Program director selection has continued and young acquisition officers have begun their journey up the management progression ladder outlined in the AMPDP. An evaluation of the program's success, its ability to develop program directors, is in order. The AMPDP has tremendous impact on an acquisition officer's career. The fulfillment of AMPDP requirements affects job selection and future assignments. Because of its significant influence, acquisition managers use the AMPDP criteria model to develop career goals. Therefore, it is critical that the AMPDP provide an accurate development model, one that is in line with current Air Force needs. If criteria are contained in the model that have little significance or impact, then they should be eliminated to provide a streamlined model that doesn't require wasteful square-filling. However, if top echelons deem some criteria as essential and use them in program director selection, then it is imperative that they be included in the AMPDP.

Objective

The proposed research has one main objective. It intends to evaluate the AMPDP with respect to program director qualifications. In doing so, deficiencies in the program, if any, will by identified and recommendations offered for changes to the required criteria.

Scope

This study focuses on the professional development of acquisition managers seeking the position of program director. The scope is further limited to the progression of acquistion officers in AFSC under the AMPDP. The research investigates the credentials of those officers in AFSC that currently hold the position designated as Air Force Specialty Code (AFSC) 0029, Program Director.

Research Approach

The approach taken in this research effort was to undertake an extensive literature review that included a breakout of the criteria outlined by the AMPDP for program director selection and those other criteria deemed highly desireable by AFSC executive level. The resulting list of criteria was then compared against the credentials actually possessed by current program directors. The actual credentials were obtained from official Officer Career Briefs (see sample career brief: Appendix A).

II. Literature Review

Introduction

This literature review provides background information for determining whether the AMPDP is an accurate career progression model to achieve the position of Program Director. A review of the development program will provide the basis for a comparison with current Air Force System Command program director credentials. This analysis will help determine whether the AMPDP is an appropriate and effective professional model.

Scope and Limitations of the Review

The intent of this literature review is to establish a reference base to conduct an analysis of the professional development model outlined in the AMPDP. This foundation is constructed by reviewing the documentation supporting the formulation of Air Force Systems Command's career development model, and the AMPDP itself. Because of the narrow scope of this review, the main sources of information include Congressional Laws, Department of Defense Directives, Air Force and Air Force Systems Command Regulations, and the Program Manager, the official journal of the Defense Systems Management College. In addition, the review will consider credentials that executive members of the Air Force, many of whom are current or past members of the AFSC Program Director Selection Board, deem desireable

in program directors. This board consists primarily of the AFSC Commander, Vice Commander, and the Product Division Commanders.

Method of Treatment and Organization

Providing the background information for a research analysis of the AMPDP relative to program director selection, this review will first provide an overview of the Air Force acquisition career field. Next, it will address the congressional and governmental initiatives that led to the development of the AMPDP. It then examines various aspects of the AMPDP, providing an overview of the program, and a description of the professional development model. Lastly, this literature review will discuss the current executive emphasis on specific credentials relative to program director selection.

Discussion of the Literature

Overview of Air Force Acquisition Career Field. Air Force Regulation (AFR) 36-1 governs the officer specialty classification system. The Air Force classifies the types of primary officer duties according to "utilization fields" or "specialties." Each officer job type is assigned a four-digit Duty Air Force Specialty Code (DAFSC). The first two digits represent the utilization field to which the officer is assigned. The third digit determines the officer's specialty while the fourth digit signifies the rank

limitation. Attachments to the regulation outline the duties and qualifications relevant to each specialty.

Acquisition is defined by DoD Directive 5000.23, System Acquisition Management Careers, as the

> . . . conceptualization, initiation, design, development, test, contracting, production, deployment, and logistic support of weapon and other systems, supplies, or services (including construction) to satisfy agency needs, intended for use and/or support of military missions. (1:1)

Many utilization fields are associated with acquisition management. The fields include Program Director (0029), Scientific (26XX), Acquisition Program Management (27XX), Development Engineering (28XX), Test Pilot/Navigators (286X/287X), Communications-Computer Systems (49XX), Acquisition Contracting/Manufacturing (65XX), Logistics Plans and Programs (66XX), Budget Officer (673X), or Cost Analysis Officer (674X) (8:3). All of these specialties are part of the military acquisition cadre. However, when referencing "acquisition manager," the term generally applies to officers in the 27XX or 0029 career fields. The three officer specialties included in these utilization fields are:

1. AFSC 2724 Acquisition Project Officer
2. AFSC 2716 Acquisition Management Officer
3. AFSC 0029 Program Director

Acquisition Project Officers "assist in planning and managing system, subsystem, or equipment acquisition

programs." The grade of a 2724 officer ranges from second lieutenant to major (2).

Officers with a 2716 specialty code are the intermediate level acquisition managers. They "perform as Program Manager (PM) for the acquisition of any program not meeting the definition of a major program"(3). The grade of 2716's ranges from major to colonel (3). A non-major program is deemed such due to program dollars being below a particular threshold or not being particularly politically sensitive.

Program Director positions, designated by a 0029 specialty code are filled by colonels or colonel-selects responsible for providing "executive management supervision for major acquisition programs" (4). The program director leads the System Program Office (SPO), the qualified, acquisition team responsible for a particular major weapon system procurement (1:2).

Some SPO's are of such significance that they are led by a general officer as the program director. AFSC 0002 is the generic designation for all general officer positions. The program director position in these circumstance is therefore coded a 0002 position rather than a 0029. Because responsibilities and position requirements are the same, they are considered synonymous when referencing program directors.

Congressional and Government Initiatives. Recent congressional language and supporting DoD directives have mandated the experience and education that senior acquisition managers, primarily program directors, will have before being named to such a position. These required credentials are outlined in Public Law 99-145 and DoD Directive 5000.232 (13:698; 1).

Public Law 99-145. P.L. 99-145, the FY 1986 Defense Authorization Act, outlines (in section 1622) the education, training, and experience requirements for program managers. The definition used for program manager is "an officer or employee of the Department of Defense ... to have overall responsibility for acquisitions under a major defense acquisition program" (13:697). This is the Air Force definition of Program Director (4). Requirements outlined for program manager positions equate to requirements for the Air Force program director position.

The Law directs the Secretary of each military department to develop and implement regulations establishing the requirements for individuals assigned to duty as program manager, subject to the Secretary of Defense's approval. The minimum requirements stipulated by law are that the person assigned:

> (1) must have attended the Program Management Course (PMC) at the Defense Systems Management College (DSMC) or a comparable program management course at another institution; and
> (2) must have at least eight years experience in the acquisition, support, and maintenance of weapon

systems, at least two of which were performed while assigned to a procurement command. (13:698)

The Service Secretary has an non-delegatable authority to waive the requirements.

DoD Directive 5000.23. DoD Directive 5000.23, System Acquisition Management Careers, in compliance with P.L. 99-145, establishes the eligibility criteria, selection policy, training, career development, and tenure of personnel to be assigned as program managers. The stated objective is to select individuals with the highest possible qualifications. To meet that goal the following standards are required of military personnel:

(1) Education
    (a) A baccalaureate or advanced degree in a technical, scientific, or managerial field is mandatory.
    (b) A master's degree in an appropriate field is desired.
(2) Training
    (a) Successful completion of the DSMC PMC, or comparable program management course is mandatory.
    (b) Successful completion of the prescribed curriculum of an intermediate service school is mandatory
    (c) Successful completion of the prescribed curriculum of a senior service school is desired.
(3) Experience
    (a) At least 8 years of experience in the acquisition, support, and maintenance of weapon systems--at least 2 acquired while assigned to a procurement command. (1:2-3)

The Directive does provide some alternatives for meeting some requirements and the Service Secretary maintains the waiver authority. It is clear, however, that

unless waived, requirements must be met before assignment to the position.

The Acquisition Management Professional Developmemt Program. The Acquisition Management Professional Development Program (AMPDP) is governed by Air Force Systems Command Regulation (AFSCR) 36-5 (8). The AMPDP is the result of the efforts of a task force appointed by General Lawrence Skantze, AFSC Commander. Led by Major General Ronald W. Yates, USAF, F-16 program director, the team was comprised of 20 senior acquisition managers representing AFSC organizations and functional specialities. The objectives of task force were to:

> - Develop a structured acquisition manager career-development model to set forth a definitive and viable career management plan producing broad-based acquisition managers capable of assuming leadership roles.
> - Develop an acquisition manager certification process to provide a visible, formalized career path to senior acquisition manager duties. (10:21)

General Bernard P. Randolph, as the AFSC Commander, comments on the outcome in his article "Air Force Acquisition: Toward The Direct Route":

> Young test pilots, engineers, contracting officers, and program managers are sharp, creative, and better trained; for instance, acquisition officers have gates now, like pilots. Our professional development model certifies them at four levels. It includes ... DSMC, program office tours, lab, AFPRO, or headquarters job. ... we have built a professional development plan that accommodates acquisition officers, test pilots and navigators, and operational pilots and NAVS. (11:6)

Overview of AMPDP. The primary objective of the AMPDP is to insure that the professional development and

capability of the acquisition officer are maximized. It attempts to accomplish this goal by outlining a career management plan that produces broad-based managers for the procurement process. Intrinsic to the philosophy of the AMPDP is the fact that the Air Force acquisition system needs trained and experienced professional leaders at all levels to ensure mission success. The AMPDP must produce acquisition managers with broad experience, yet with a common core of experience, training, education, and professional development. This mixture of qualifications must be achievable and is accomplished in part by providing opportunities for high-potential officers in related fields to transition into acquisition and encouraging operational broadening assignments for those officers who begin their careers in acquisition (8:2).

While all officers in acquisition-related career fields are eligible to participate in the AMPDP, the focus centers on officers in the 0029, 2916, and 26XX through 28XX specialties. The program provides "a phased professional certification process" which enables monitoring the development of the acquisition officer force as well as the mapping of a visible career track for participants. "A formal selection process" is also an integral part of the program. It allows the identification of "those officers best qualified to assume senior acquisition management responsibilities" (8:2,3).

Professional Development Model. The AMPDP consists of a professional certification program and a formal screening process. The certification process and the requirements established for such certification form the basis of the four levels of the AMPDP. The process provides a formalized career model leading to program director duties. Each level has specific requirements to ensure proper levels of academic and military education, specialty training, and aquisition-related experience. Specific time limits are not established; however, phase points, as seen in Figure 1, are provided as goals for career mapping (8:3).

The four levels of certification in the AMPDP are:

(1) Level I - Acquisition Management Intern.
(2) Level II - Intermediate Acquisition Manager.
(3) Level III - Associate Acquisition Manager.
(4) Level IV - Professional Acquisition Manager. (8:3)

The Level IV certification incorporates the qualifications required for a program director position as outlined in DOD Directive 5000.23. Because the AMPDP is a "building block" system with each level's requirement forming the basis for next higher level of certification, an officer certified at Level IV must meet all of the requirements at all lower levels in the certification process with the addition of the following:

Academic education: master's degree (or higher) in a technical or management field appropriate to program management.
Specialty training: DSMC Program Management Course.
Professional military education: Senior Service School (SSS).
Experience. The following requirements must be met:

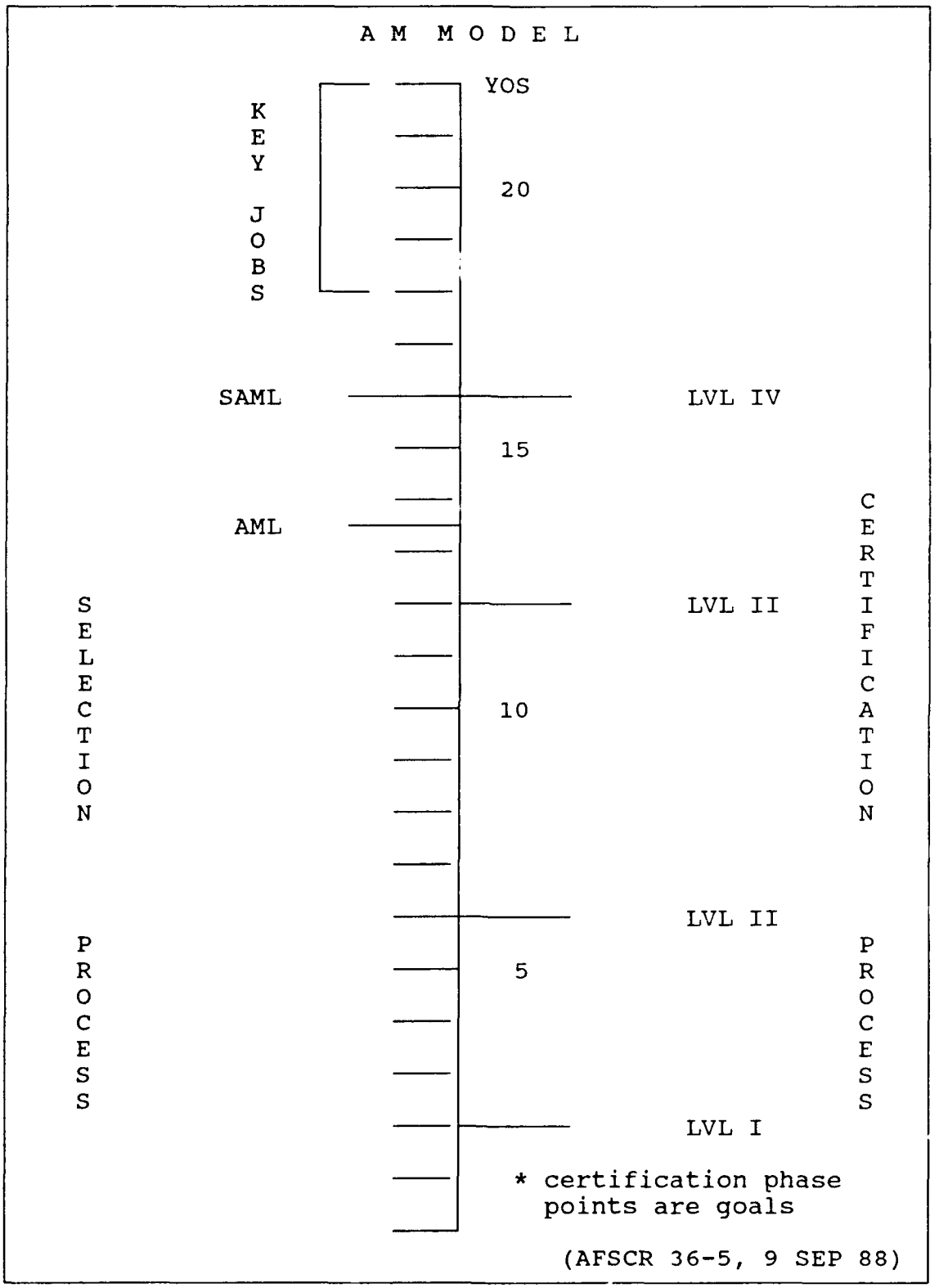

Figure 1. AM Professional Development Model

(a) At least 8 years' experience in the acquisition, support, and maintenance of weapon systems, at least 2 of which were performed while assigned to a procurement command (AFSC or AFLC).
(b) Minimum 2 years' experience as SPO PM. (8:8)

Figure 2 shows the requirements neccessary for certification at each of the four levels.

The formal selection process permits the screening of certified acquisition managers and the identification of those with the greatest potential to assume senior acquisition duties. Two screening points exist: the Acquisition Managers List (AML) and the Senior Acquisition Managers List (SAML). AML eligibility requires Level III certification and the rank of major, currently eligible for secondary zone promotion to lieutenant colonel. SAML eligibility requires Level IV certification and the rank of lieutenant colonel or above. Annually 100 officers or the top 40 percent eligible (whichever is smaller) are selected for the AML and approximately 50 officers are selected for the SAML. Selection is on a "best qualified" basis. Selection to either list results in special career monitoring to either key acquisition billets or senior program management positions. "Duty performance, demonstrated leadership ability, and operational experience will be weighed heavily in the selection process" (8:10). The SAML provides the pool of officers qualified to assume senior program managment positions such as program director (8:9,10).

LEVEL I	LEVEL II
1. Bachelor's degree. 2. Fully qualified acquisition AFSC 3. SAS 001 or equivalent.	1. SOS or higher. 2. One of the following: a. 2 year's SPO experience. b. 2 years in a general acquisition organization (if involved in cost, schedule, and performance management of contracted work). 3. One of the following: a. 2 years in general acquisition (must be different organizational type than first experience). b. 1 year operational experience. c. 2 year's headquarters assignment. 4. SYS 200 or equivalent. 5. Two additional acquisition-related specialty courses.
LEVEL III	**LEVEL IV**
1. Master's degree (acquisition-related). 2. ISS or higher. 3. 3 years' cumulative SPO experience. 4. Total experience (SPO plus two of the following): a. SPO (different product division). b. Acquisition other (AFPRO encouraged). c. Headquarters assignment. d. Operational assignment. 5. SYS 400 or equivalent.	1. SSS 2. 8 years' acquisition experience. 3. DSMC Program Management Course 4. 2 years' experience as SPO project manager. 5. AFSC/CC approval. (AFSCR 36-5)

Figure 2. Certification Requirements.

Summary

From the literature reviewed it is clear that public scrutiny of the weapon system acquisition process has generated initiatives targeted at providing a seasoned, well-trained acquisition cadre. Such efforts are embodied in congressional legislation such as P.L. 99-145 and government actions like DoD Directive 5000.23. These documents lay the preliminary, minimum qualifications for those responsible for procuring critical systems for our national defense. Air Force Systems Command has developed and instituted the Acquisition Management Professional Development Program designed to support the public law and higher DoD direction. It is a four-level certification process that seeks to clearly identify for the participant and the public the qualifications required to hold the Air Force acquisition position of Program Director. The AMPDP develops managers with broad experience, but with a core training and expertise in managing acquisition programs. General Randolph provides the bottom-line to the AMPDP.

> There is no substitute for operational experience, we look for flying or non-flying operations too--missiles, space, and munitions and aircraft maintenance...By the time someone is ready to manage a big-ticket item, he or she will have 8-10 years of acquisition experience in three different jobs, plus an operational tour. (11:6)

III. Methodology

Introduction

This chapter describes the methods used to collect and analyze data obtained in support of this research project. The research consist of a combination of exploratory study and formal descriptive study methods. The exploratory study consist of an intensive literature review. This effort established the variables, the criteria, serving as the basis of the descriptive study.

Variable Identification

A literature review was conducted to develop the criteria (the variables) for program director. A review of AFSC Reg 36-5 provided the AMPDP model, the required model. This model was the basis for establishing the study's measurement variables. The required criteria, along with demographic-type variables and other pertinent areas relative to a study of Air Force senior acquisition officer are listed in Table 1. An examination of personnel records was performed based on the measurement variables. This established the criteria which formulated the actual model of program director qualifications. This provided the means to assess the credentials, the presence or lack of certain criteria, held by current AFSC program directors.

TABLE 1. LIST OF MEASUREMENT VARIBLES ANALYZED TO EVALUATE PROGRAM DIRECTOR MODELS

VARIABLES	CATEGORIES
1. MARITAL STATUS	SINGLE, MARRIED, DIVORCED
2. NUMBER OF CHILDREN	0 TO 4 (4 IS HIGHEST OBSERVED VALUE
3. HIGHEST LEVEL OF EDUCATION	HIGH SCHOOL, BACHELOR, MASTER, DOCTORATE
4. UNDERGRADUATE AREA OF STUDY	TECHNICAL, MANAGEMENT, OTHER
5. AIR FORCE INSTITUTE TECHNOLOGY MA/MS	YES, NO
6. GRADUATE AREA OF STUDY	TECHNICAL, MANAGEMENT, BOTH, OTHER
7. SQUADRON OFFICER SCHOOL	YES, NO
8. INTERMEDIATE SERVICE SCHOOL	YES, NO
9. SENIOR SERVICE SCHOOL	AIR, NAVAL, ARMY WAR COLLEGE, INDUSTRIAL COLLEGE of the ARMED FORCES, NATIONAL WAR COLLEGE, NONE
10. PROGRAM MANAGEMENT COURSE OR EQUIVALENT	YES, NO
11. SOURCE OF COMMISSION	ACADEMIES, ROTC, OTS, DIRECT APPOINTMENT
12. CURRENT RANK	COLONEL SELECT, COLONEL, BRIG GENERAL, MAJOR GENERAL
13. SECONDARY ZONE PROMOTION	YES, NO
14. AERONAUTICAL RATING	PILOT, NAVIGATOR, NONE

TABLE 1. (continued)

VARIABLE	CATEGORIES
15. OPERATIONAL TOUR OTHER THAN AERO-RATING	YES, NO
16. COMBAT	YES, NO
17. HIGHEST LEVEL STAFF ASSIGNMENT	HAF/DOD, MAJCOM, NONE
18. JOINT SPECIALTY OFFICER DESIGNATION	YES, NO
19. NUMBER OF SPO ASSIGNMENTS	0 TO 5 (5 IS HIGHEST OBSERVED VALUE)
20. TOTAL YEARS OF SPO EXPERIENCE	0 TO 11 (11 IS HIGHEST OBSERVED VALUE)
21. ACQUISITION-OTHER ASSIGNMENTS	AFPRO/DCAS, LABORATORY/RESEARCH/FTD, HQ AFSC, TEST, AFLC/ALC, MULTIPLE, NONE
22. PROGRAM ELEMENT MONITOR	YES, NO

Population

The population of interest for this research was the AFSC officers currently possessing either DAFSC 0029, Program Director or DAFSC 0002, General Officer filling a program director designated manpower slot. Because the population is relatively small, 60 elements, census-type data was used.

Data Source

The primary source of data was the Air Force Form 1715, Officer Career Brief. A copy of each current AFSC program director's brief was obtained from the Director of Personnel, Senior Officer Management (AFSC/DPO) (Appendix A). Names of officers were not be used to insure anonymity.

Data Collection Instrument

A structured instrument was used to extract the census-type data available in the officer briefs obtained from AFSC/DPO (Appendix B). As data was collected on an officer, the instrument was completed to insure that consistancy, organization, and objectivity were maintained.

Accuracy of the Data

The structured instrument required only the recording of objective data about the individual officer. Officer briefs are considered highly accurate and are used by USAF personnel action boards to determine promotions, assignment selection, and various other career-related actions. The data base has been accumulated over a period of years in the Automated Personnel Data System (APDS) and is subject to yearly reveiws and corrections by the individual officers.

Validity of the Structured Instrument

The validity of the instrument is ". . . its ability to measure what it aims to measure (6:120)." The structured instrument was designed to focus on objective variables that

were derived from the required program director criteria. These measurement variables were established to obtain knowledge of the credentials held by current AFSC program directors in order to evaluate the professional development model/career progression outlined in the AMPDP. The instrument also included other areas pertinent to Air Force officers as well as some demographic data. Therefore, ample coverage of the objective data for 0029/0002 program directors was provided.

Descriptive Study

A descriptive study of the data determined the association or existence of the variables in the population. Analysis revealed what credentials current program directors actually do possess. The data compiled using the measurement variables were converted to ratio scale for use by *QuattroPro*, a personal computer-based spreadsheet. A comparison based on the frequency distribution of these credentials against the criteria of the required model was conducted to reveal differences, if any, and to develop possible refinements to the AMPDP.

Criteria Test

The primary effort in this research is exploratory and is intended to highlight differences or similarities between the two program director models. Therefore , the criteria applied to each variable was whether or not there was a meaningful difference in value or existence of a variable

between the two models. Because census data are used, all differences between the models, by definition are significant. For the purposes of this study a meaningful difference, in cases were the variable existed in both models, is defined as a ten (10) percent or greater difference between the value of the variable for each model. When a variable value not specified in the required model but found in the actual model is considered acquisition pertinent, then a frequency of fifty (50) percent is deemed meaningful. Such a variable meeting the criteria test should be considered for inclusion in the required model. These two decision rules have been combined and are referred to as the 50-10 Rule in the remainder of the study.

Summary of Assumptions

The assumptions made in this study are:

1. The variables considered in this study reflect a career model for program directors.

2. The objective historical data obtained from the officer career briefs are accurate.

Limitations

The limitations of this study are:

1. Time available for work on the thesis was limited, particularly for data collection and analysis.

2. Air Force executive-level emphasis on certain program director credentials limited to review of available documented comments.

IV. ANALYSIS AND DISCUSSION OF THE DATA

Introduction

Credentials pertinent to program director selection are analyzed and discussed in this chapter. The review of the data concerning these credentials, viewed as measurement variables, is organized in two main parts. First, the data is described with regard to the method of collection and the means of determining the differences and the similarities between the criteria outlined by the AMPDP (AFSCR 36-5), and actual program director credentials. Second, the specific values of the variables are examined to answer the investigative questions by showing to what degree and in what areas the actual program director model adheres to the AMPDP required model. Statistical techniques to conduct the comparison are limited to frequency distributions of variable values and computation of relative percentages.

Data Review

The source for data to conduct analysis was AF Form 1715, Officer Career Brief. Briefs were provided on the sixty 0029/0002 program directors in AFSC by the Director of Personnel, Senior Officer Management (AFSC/DPO). These briefs provided the data relative to the variables developed from the required model. Additional variables were considered to provide personal background information and other pertinent acquisition data.

Some items included in the officer briefs were not analyzed. It was neither practical to consider every item, nor would the analysis of many items be meaningful in a discussion of acquisition program director requirements. Assignment preference data would be an example of this type of data.

Investigative Question One, which concerned the development of the required model, was answered by reviewing AFSCR 36-5 and extracting the qualifications for senior acquisition positions. These qualifications formed the basis for a list of measurement variables. Table 2 shows the measurement variables with the corresponding required model values. Investigative Question Two is addressed by using the measurement variables in conjuction with the officer career briefs. The actual model is comprised of the value of each of the measurement variables relative to the career brief data. These required values (qualifications) are then compared against the values obtained from the career briefs. This comparison, the object of Investigative Question Three, reveals differences and similarities between the two models. The career brief values were plotted by variable to facilitate the comparative analysis of the two models.

Two decision rules were used in determining if differences were meaningful. A ten percent or greater difference between the values of the variables was considered meaningful when the variable or criteria existed

TABLE 2. LIST OF MEASUREMENT VARIABLES RELATIVE TO PROGRAM DIRECTOR REQUIRED MODEL

VARIABLES	VALUE
1. MARITAL STATUS	NOT ACQUISITION PERTINENT
2. NUMBER OF CHILDREN	NOT ACQUISITION PERTINENT
3. HIGHEST LEVEL OF EDUCATION	MASTERS
4. UNDERGRADUATE AREA OF STUDY	NOT SPECIFIED
5. AIR FORCE INSTITUTE TECHNOLOGY MA/MS	NOT SPECIFIED
6. GRADUATE AREA OF STUDY	TECHNICAL or MANAGEMENT/ (ACQUISITION-RELATED)
7. SQUADRON OFFICER SCHOOL	YES
8. INTERMEDIATE SERVICE SCHOOL	YES
9. SENIOR SERVICE SCHOOL	YES
10. PROGRAM MANAGEMENT COURSE OR EQUIVALENT	YES
11. SOURCE OF COMMISSION	NOT ACQUISITION PERTINENT
12. CURRENT RANK	COLONEL SELECT, COLONEL, OR HIGHER
13. SECONDARY ZONE PROMOTION	NOT SPECIFIED
14. AERONAUTICAL RATING	OPERATIONS HIGHLY DESIRED (meets 1 yr operational option)
15. OPERATIONAL TOUR OTHER THAN AERO-RATING	OPERATIONS HIGHLY DESIRED (meets 1 yr operational option)

TABLE 2. (continued)

VARIABLE	CATEGORIES
16. COMBAT	NOT ACQUISITION PERTINENT
17. HIGHEST LEVEL STAFF ASSIGNMENT	HEADQUARTERS ASSIGNMENT (meets 2 yr headquarters option)
18. JOINT SPECIALTY OFFICER DESIGNATION	NOT SPECIFIED
19. NUMBER OF SPO ASSIGNMENTS	1 MINIMUM
20. TOTAL YEARS OF SPO EXPERIENCE	3
21. ACQUISITION-OTHER ASSIGNMENTS	YES
22. PROGRAM ELEMENT MONITOR	NOT SPECIFIED (meets 2 yr headquarters option)

in both models. When the variable existed only in one model then a relative frequency of occurrence of fifty percent or greater was deemed meaningful. This two-part rule is termed the 50-10 Rule.

The following analyses include the results of the comparison of each of the variables. In the analyses, if a meaningful difference based on the 50-10 Rule was found between the two models relative to a particular variable then it would be considered a disconnect between the two models. Significant differences are recommended to be considered as changes to the AMPDP career model.

Personal Background

Variables in this section were analyzed to see if social factors in an officer's background are significant in selection to program director. Data were also used to provide descriptive data overall actual model of a program director.

Marital Status. Over 91 percent of program directors are married (Figure 3). Because of data format, a determination of the degree of importance of marriage in program director selection could not be made. It is important to note that the career brief list only the officer's current marital status. It does not show those officers that have divorced and remarried. Morris Janowitz pointed out that the belief that marriage is important to an officer's career has long persisted (9:192). Although this variable is not specifically addressed in the AFSCR 36-5 the value of the actual model meets the 50-10 Rule for a meaningful difference. The assumption that marriage does play a significant role in program director selection was made although the variable has no direct relationship to the acquisition career field. It is probable that the marital status is more directly related to rank, a required criterion, than to program director selection.

Number of Children. The highest percentage of program directors (46.7 percent) had two children in their family (Figure 4). Over 91 percent of the program directors had a

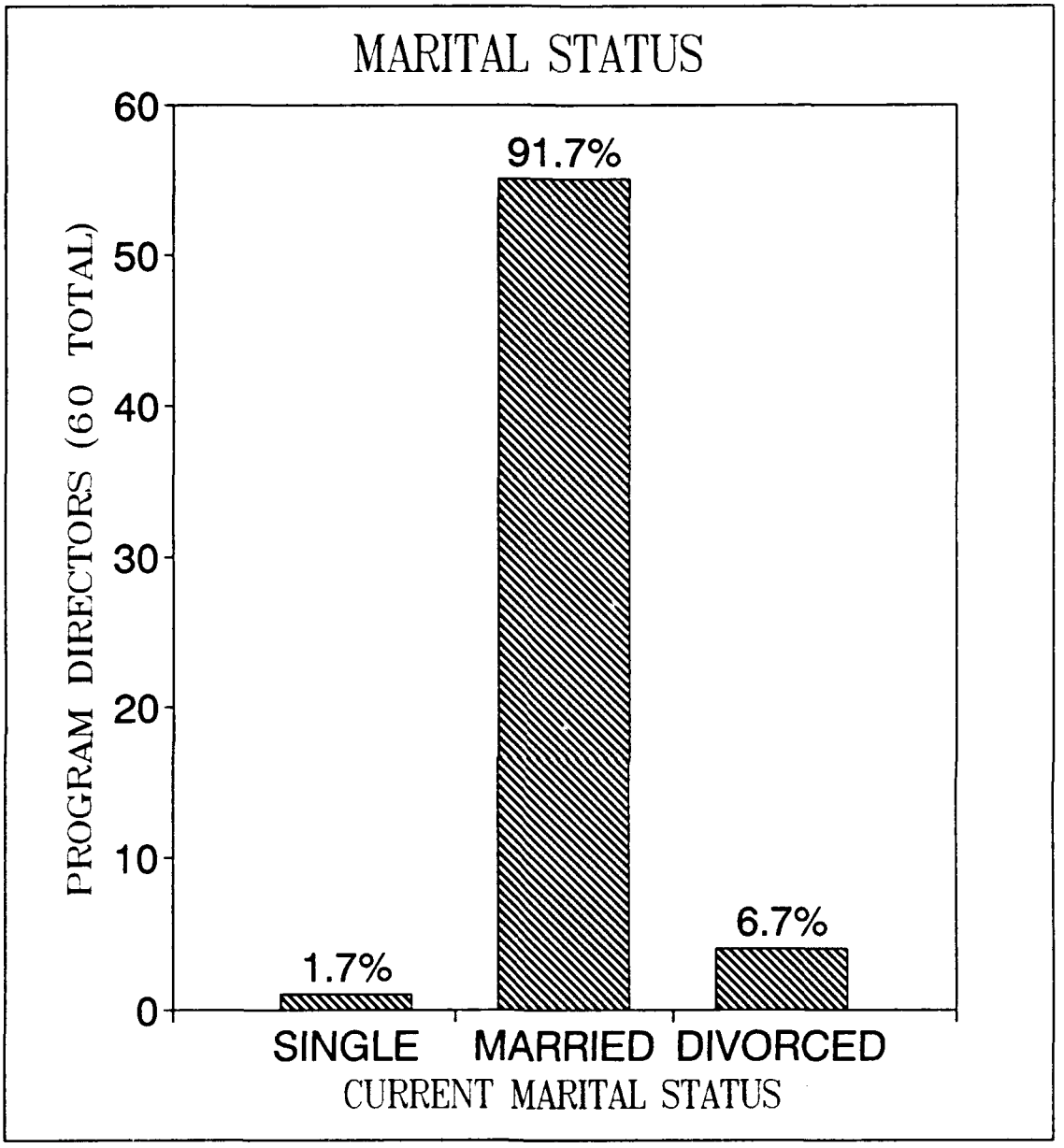

Figure 3. Marital Status of Program Directors

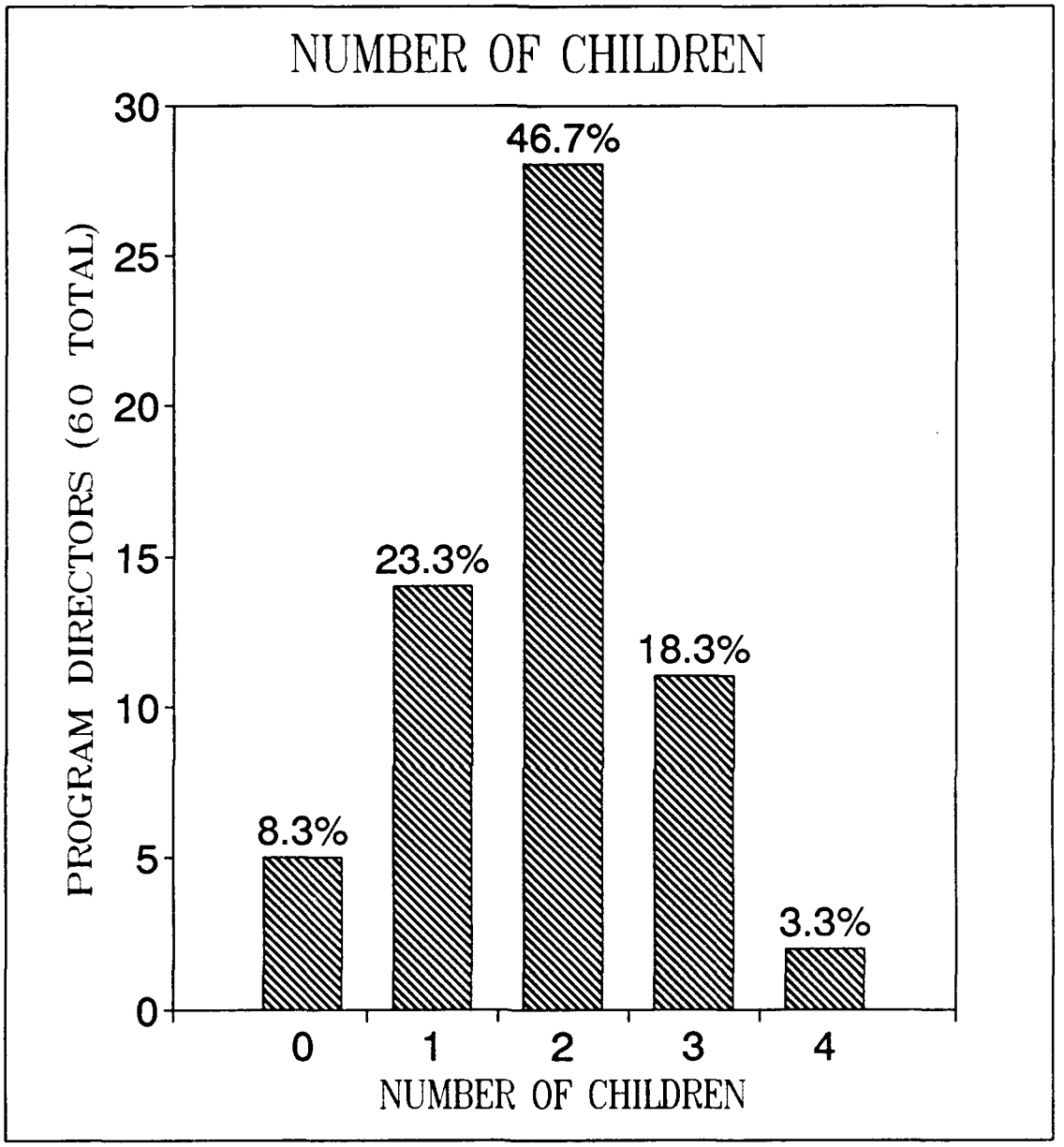

Figure 4. Number of Children in Program Directors' Families

least one child. This variable is not acquisition pertinent and likewise the required model has no qualification of parenthood. Although the actual model value of 91 percent represents a significant difference according to the 50-10 Rule, this variable serves descriptive purposes only and is assumed to be a natural social result of the previously discussed variable -- marital status.

Academic and Professional Military Education

This section analyzed the measurement variables dealing with the academic and military education of the program directors. The analyses were performed in order to identify the actual model values of the criteria variables and determine if the variables were significant when compared against the required model.

Highest Level of Formal Education. When considering the variable "Formal Education Level", meaningful differences did not exist between the required and the actual model. The required model stipulates a Master's degree or higher. In actuality, all program directors possess that qualification. In fact, 11.7 percent had obtained a Doctorate (Figure 5). The USAF Summary for the Biennial Budget states that 47 percent of all Air Force officers have a Master's or higher (12:C-38). Eighty-nine percent of colonels Air Force-wide have completed their Master's, with 4 percent having Doctorates (7). The degree is a stated requirement for program director selection and

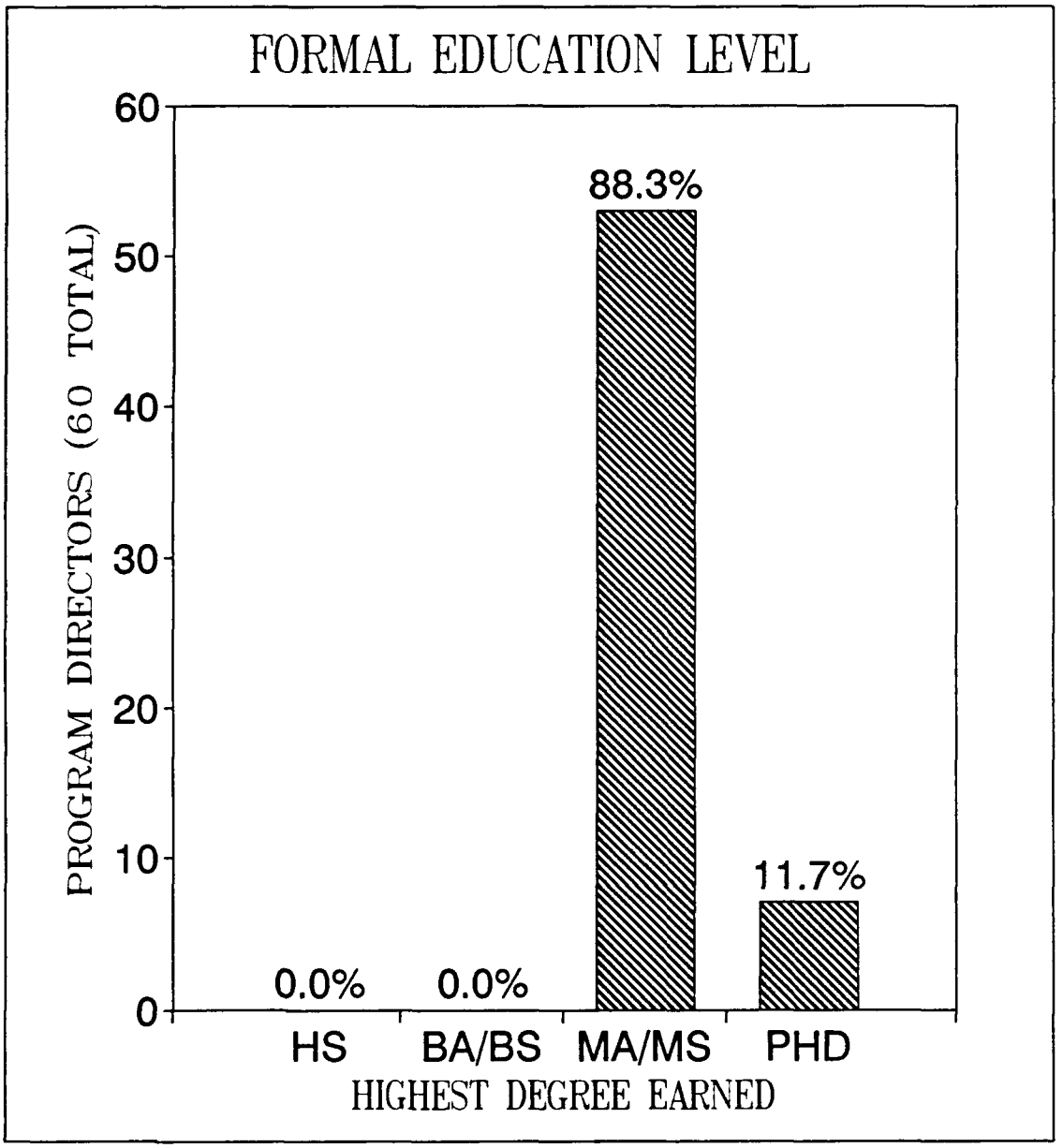

Figure 5. Formal Education Level of Program Directors

is obviously being adhered to closely. It is assumed that this criterion is significant for two reasons. First, an advanced degree can provide the education needed for success at certain higher level technical or managment positions. Second, obtaining an advanced degree denotes an intellectual acumen that most likely carries over to other aspects of an officer's career.

Undergraduate Area of Study. When considering the variable "Undergraduate Area of Study", a meaningful difference did exist between the two models. Over 71.7 percent of the program directors had a technical degree and 15 percent had a management-type degree (Figure 6). Under the 50-10 Rule, the frequency of technical degrees is considered significant. Although the required model does not specify a degree-type criterion at the Bachelor's level, lower-level certification in the AMPDP requires officers to be fully qualified in their duty AFSC. This most often entails the holding of a technical or management undergraduate degree in the case of the acquisition career fields (2). Limiting program director selection by requiring an undergraduate degree in technical or management would apparently eliminate 13.3 percent of the current program directors from selection. A cross-tabulation against aeronautically rated program directors shows that five (23.8 percent) officers would be eliminated. Thus, it appears that a technical/management degree requirement would

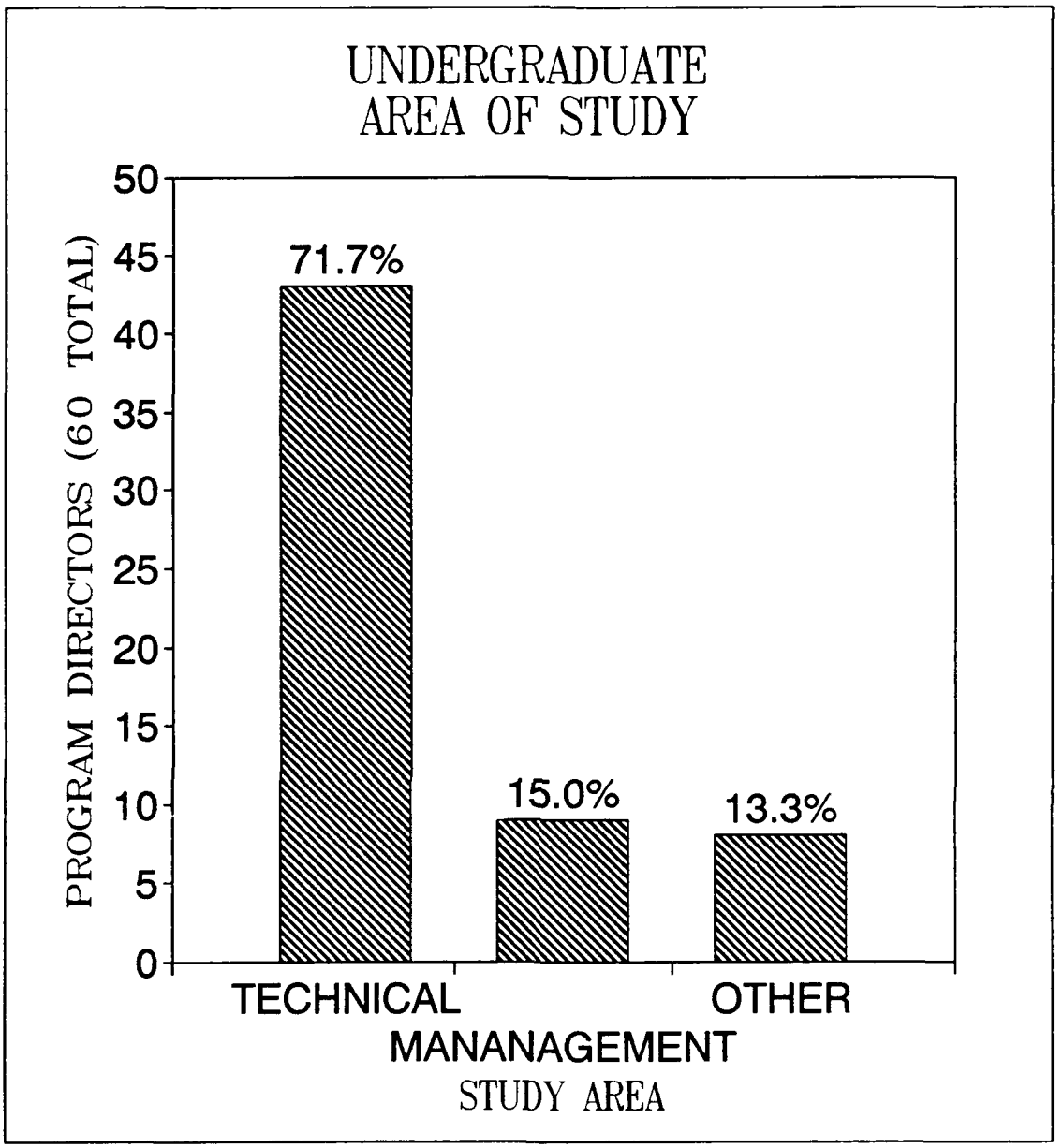

Figure 6. Undergraduate Area of Study for Program Directors

not significantly impact current program director selection on the whole but would limit the cross-over of rated officers into the acquisition career field. Further restricting the criterion to technical degree only would eliminate an additional 15 percent of the program directors for a total of 28.3 percent. Two more program directors who are also rated officers would be affected for a total 33.3 percent of rated program directors.

Air Force Institute of Technology (AFIT) Master's Degree. When considering the variable "AFIT MA/MS", no significant difference was found. Only 26.7 percent of the directors obtained an AFIT graduate degree (Figure 7). The required model makes no specification as to where the graduate degree should be obtained. It must be noted that the actual data do not reveal if the other 73.3 percent obtained their graduate degree either in the AFIT Civilian Institute Program or through some other Air Force-assisted degree program. The source is probably less significant than the program through which the degree is obtained. It is assumed that there is an indirect effect on the Formal Education Level variable. The more Air Force sponsored degree programs, the more advanced degrees. This would reflect the emphasis that the Air Force places on graduate education by providing graduate programs tailored to specific Air Force needs.

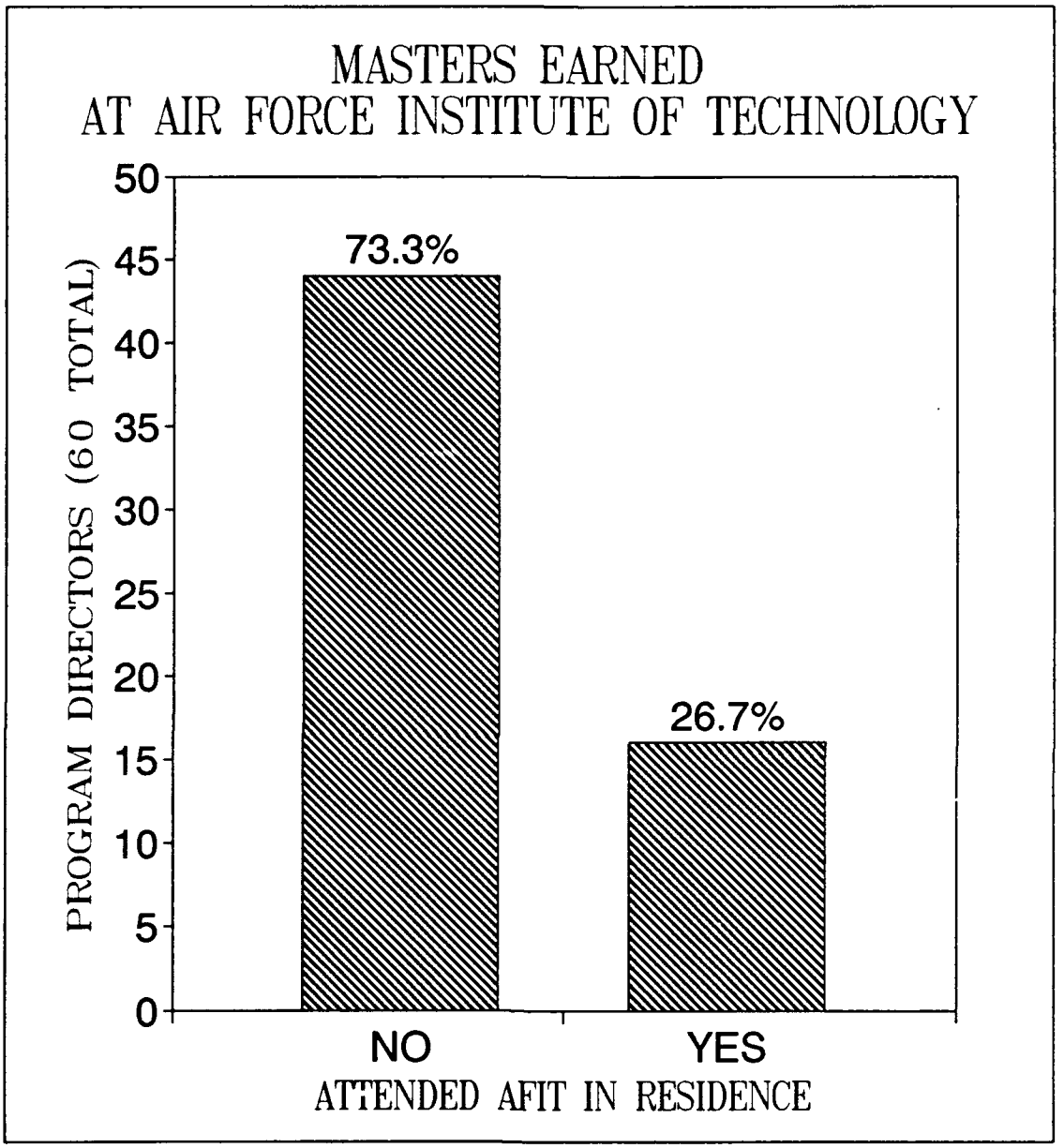

Figure 7. Program Directors Earning AFIT Master's Degree

Graduate Area of Study. When considering the variable "Graduate Area of Study", no meaningful differences between the two models were found in accordance with the 50-10 Rule. Ninety-five percent of the program directors had obtained a graduate degree in either a technical or management area or both (Figure 8). This finding is consistent with the criteria outlined by the required model. Technical-degrees accounted for 41.7 percent, while management-only degrees represented 46.7 percent. Those program directors holding both a technical and a management advanced degree made up 6.7 percent of the population. The high compliance rate would indicate that the variable is highly significant in program director selection and further emphasizes the Air Force's belief that graduate education is very important and must match duty requirements.

Completed Squadron Officer School (SOS). When considering the measurement variable "Squadron Officer's School", no meaningful difference between the required and the actual model was identified per the 50-10 Rule. The required model stipulated completion of SOS. The actual model showed that 98.3 percent of the program directors had either accomplished SOS in residence or through correspondence (Figure 9). The analysis shows a high compliance with the regulation by the actual model. The fact that the required model stipulates completion and that the actual frequency of completion is markedly high demonstrates the importance the Air Force places on early

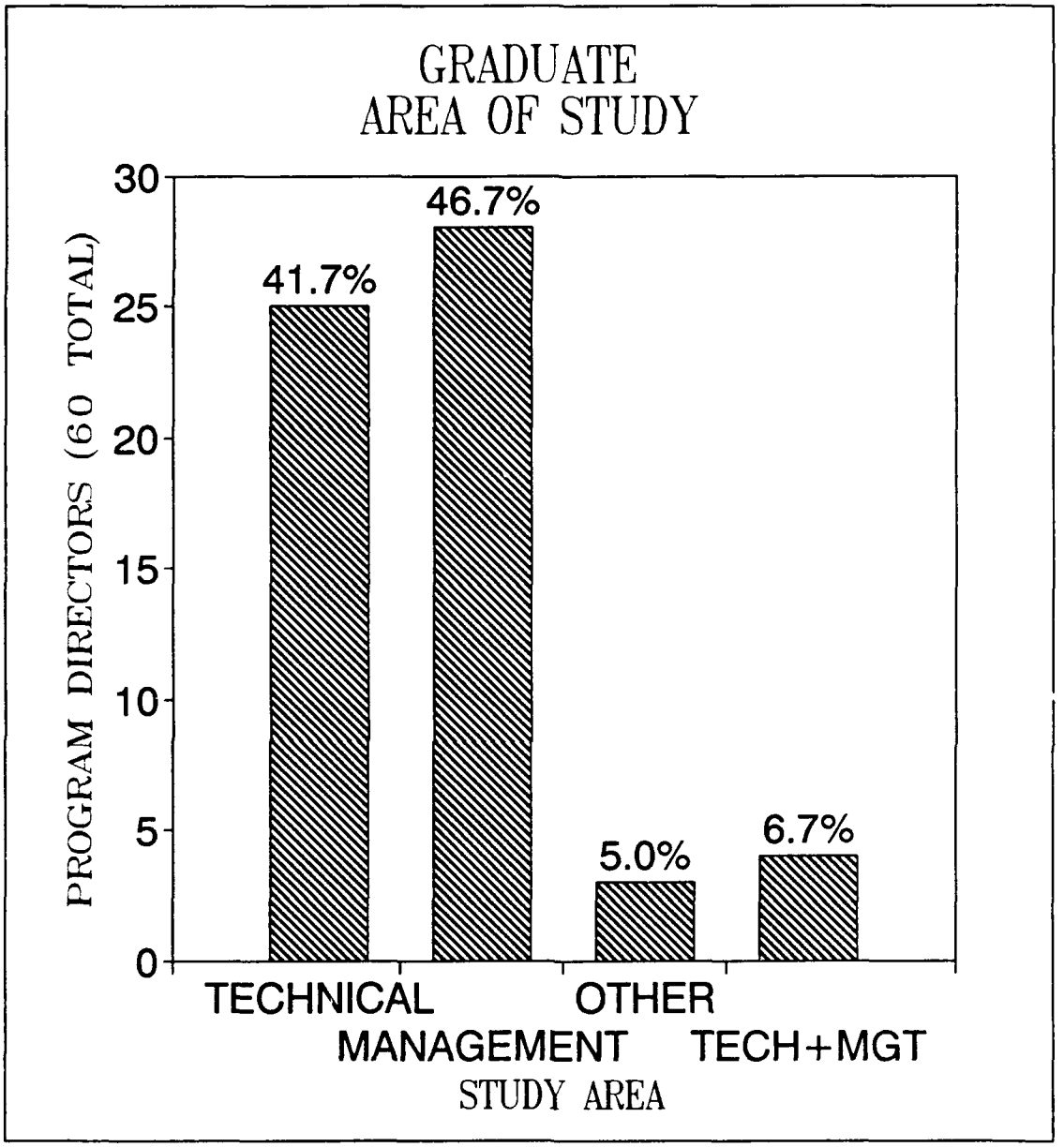

Figure 8. Graduate Area of Study for Program Directors

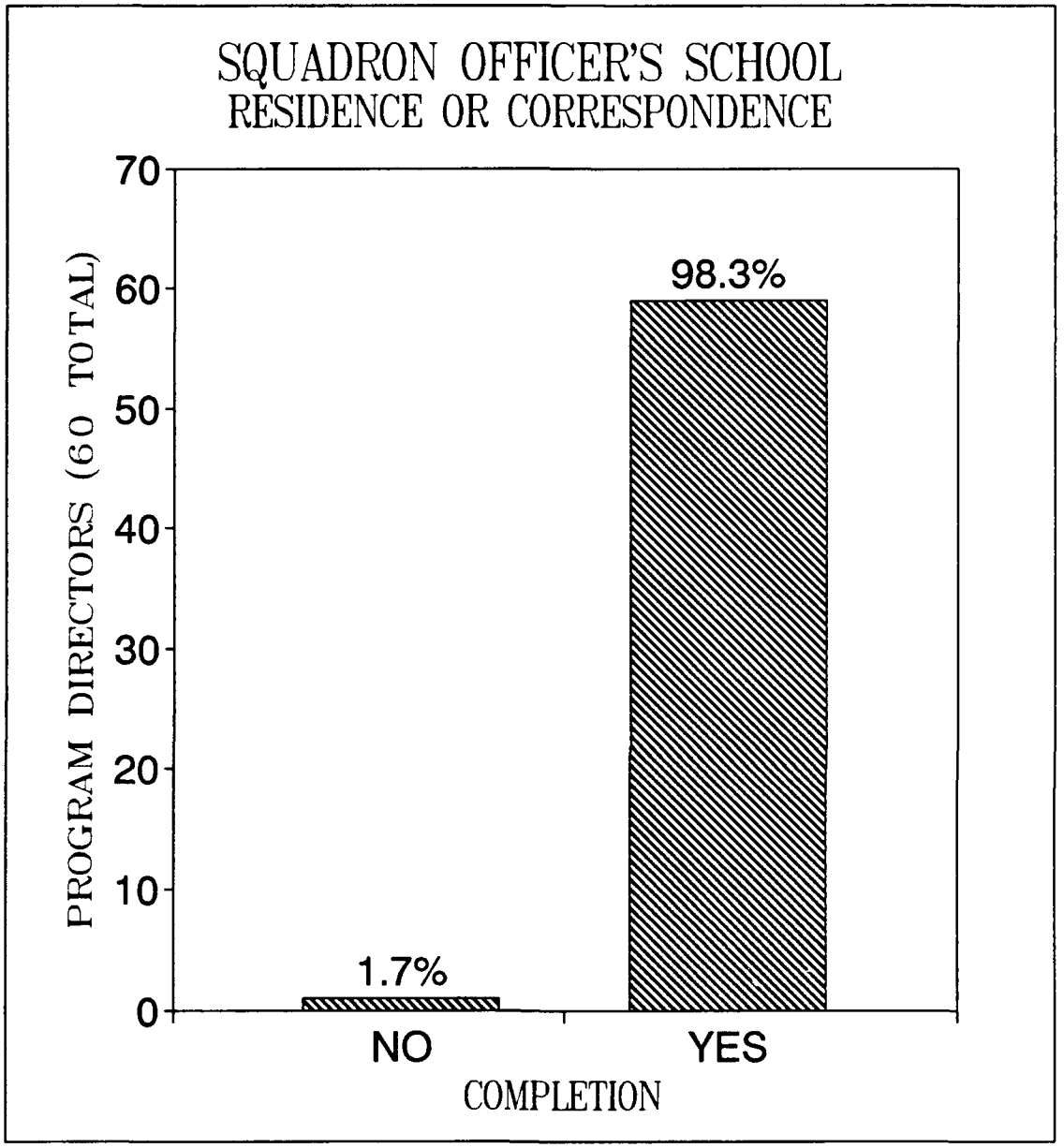

Figure 9. Squadron Officer School Completion by Program Director

professional schooling. SOS serves to reinforce the military values and objectives important in a young officer's career.

Completed a Staff College. When considering the variable "Intermediate Service School (ISS)", no significant difference was found when evaluated against the 50-10 Rule. ISS had been completed by 96.7 percent of the program directors (Figure 10). Only two officers did not meet the required model. This equates to less than a 10 percent waiver of the requirement and is thus insignificant. The statistics indicate the value of this training to career progression and program director selection. As with SOS, the high level of completion shown in the evaluation of the actual model and the high level of compliance with the required model, both amply demonstrate the significance placed on continued military education by the Air Force. It is assumed that ISS completion is considered important in both promotion and program director selection.

Completed a Senior Service School. There was a meaningful difference between the required model and the actual model when considering the variable "Senior Service School". When evaluated under the 50-10 Rule, the 16.7 percent of program directors failing to complete a senior service school account for a greater than 10 percent waiver with respect to this variable (Figure 11). Under the stated rule the requirement for Senior Service School completion

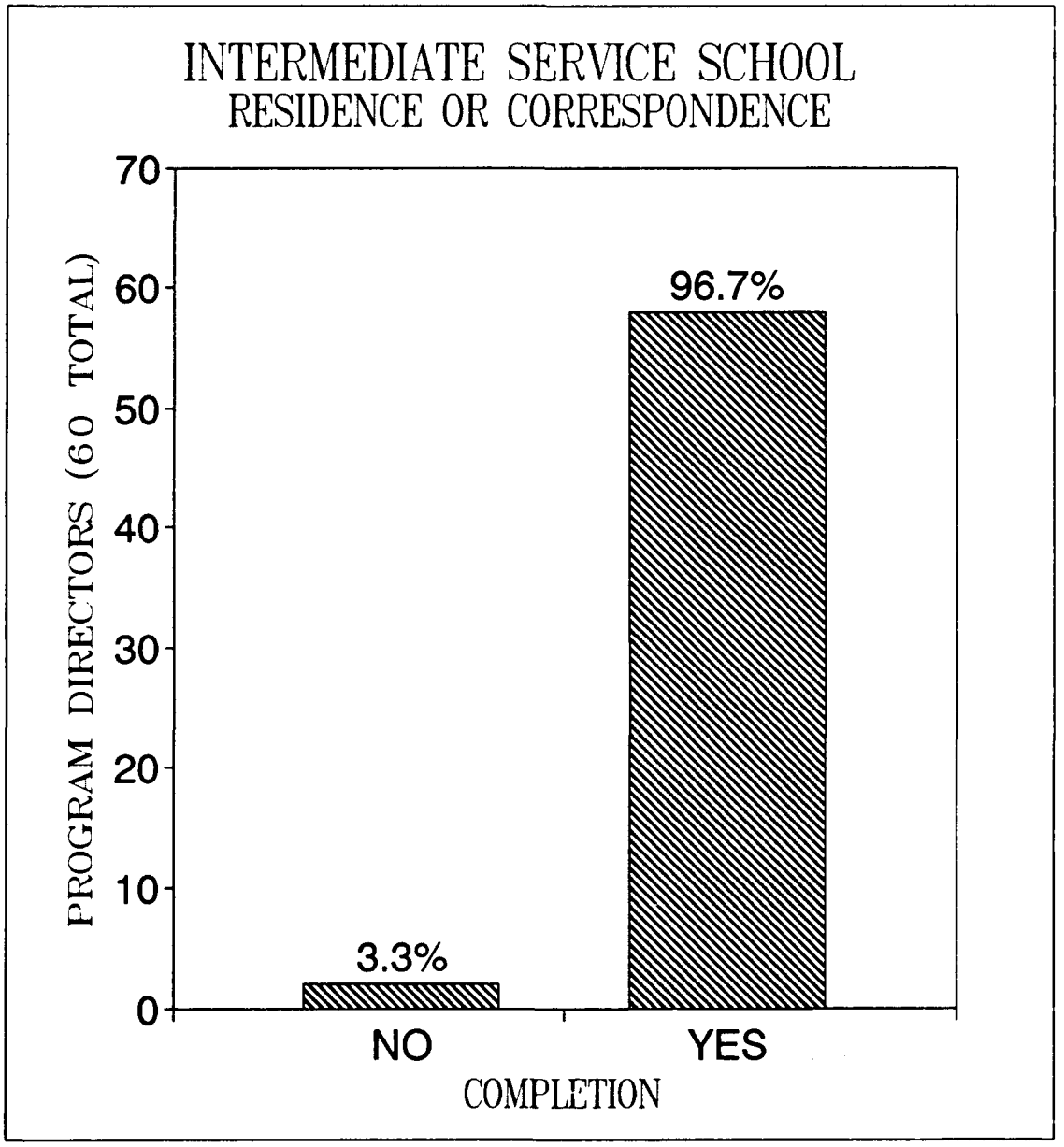

Figure 10. Intermediate Service School Completion by Program Directors

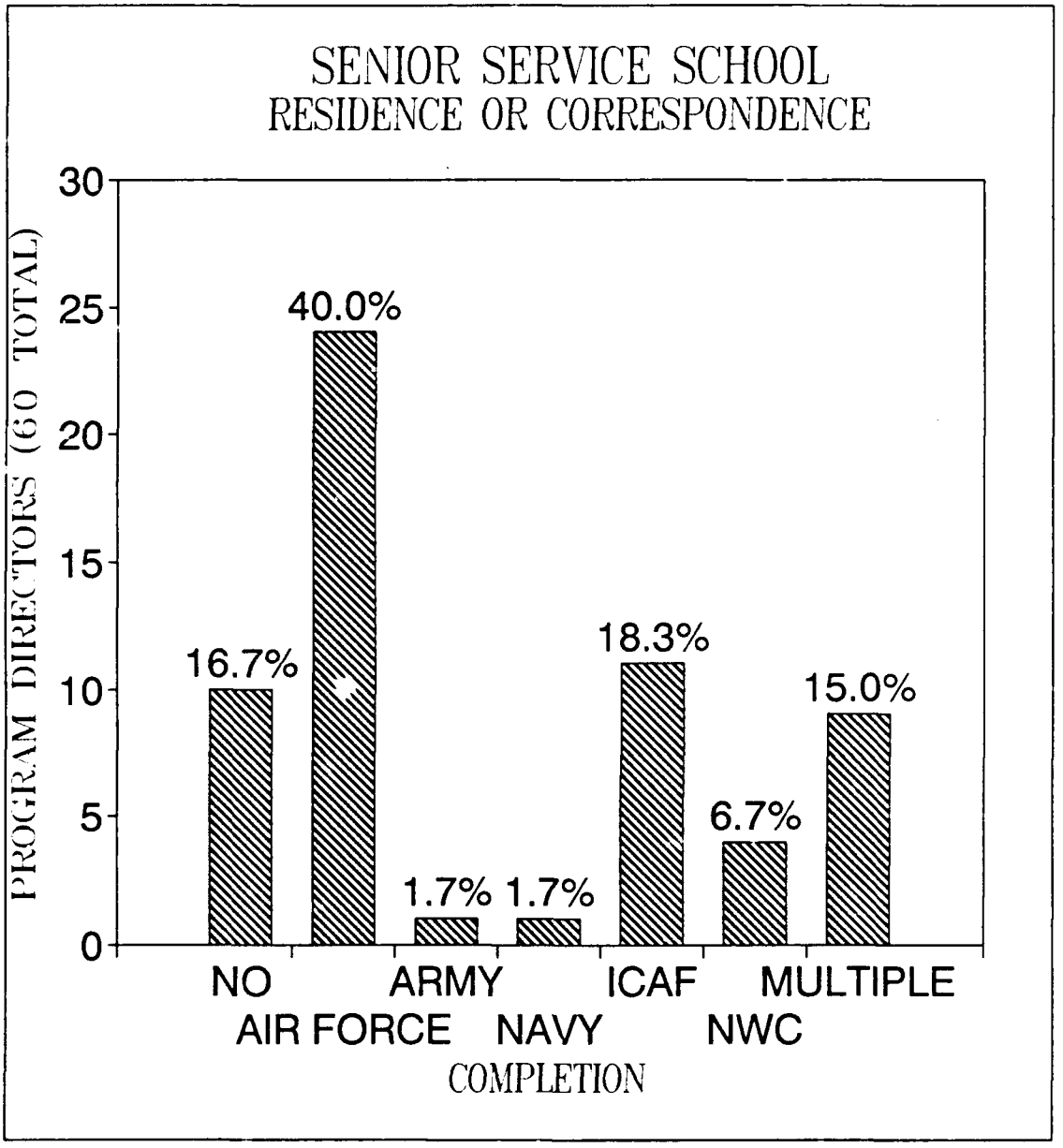

Figure 11. Senior Service School Completion by Program Directors

appears valid. Over eighty-two percent of the program directors had completed the required school with; 40 percent completing Air War College, 1.7 percent completing the Army War College, 1.7 percent completing the Navy War College, 18.3 percent completing Idustrial College of the Armed Forces, 6.7 percent completing National War College, and 15 percent completing more than one Senior Service School. This compares favorably with Air Force-wide O-6's, who have over an 80 percent completion rate (7). Even though there is a meaningful difference between models, the overall high frequency of completion and general compliance with the required model demonstrate the significance of Senior Service School to program director selection. The difference highlights the need to police the program director selection process relative to the Senior Service School variable.

Completion of Program Management Course. When examining the variable "Program Management Course or Equivalent", a meaningful difference was indicated. Under the 50-10 rule, the failure of 40 percent of the program directors to comply with the requirement exceeds the 10 percent exception rule (Figure 12). The 60 percent completion rate does signify that PMC completion is significant in program director selection. The requirement for PMC or an equivalent course is derived directly from congressional law and is waiverable by only the service

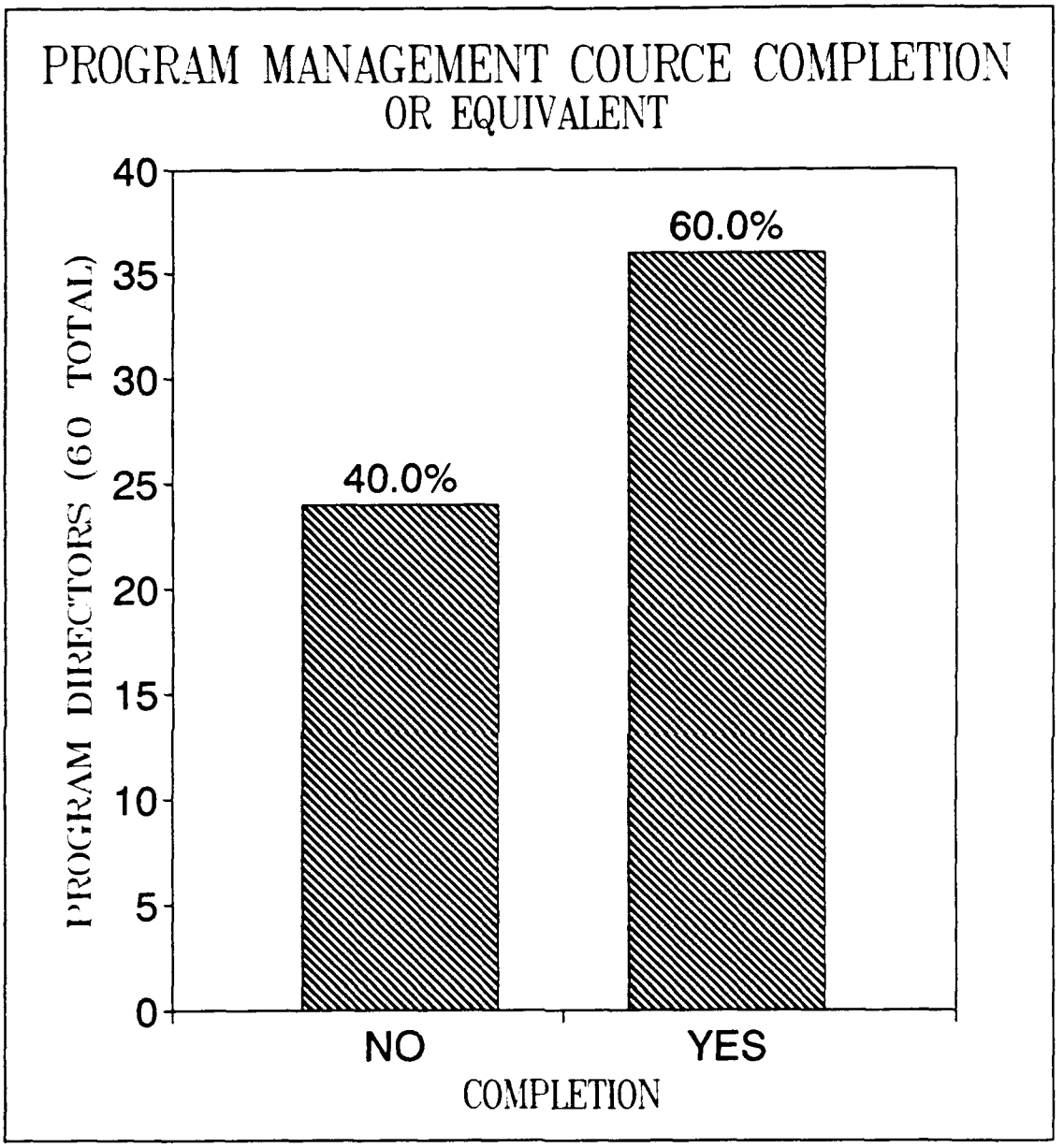

Figure 12. Program Management Course Completion by Program Director

secretary (13:698). With such support for a qualification, dropping the requirement is not appropriate. Because of the meaningful difference noted, an adjustment to the selection process should be considered in order to develop a higher compliance. Particularly since the completion and, thus, the significance of PMC has been mandated.

Military Experience

The final section of the structured instrument examined the military experience of each of the sixty program directors. Variables such as rank and aeronautical rating were analyzed to determine their significance on program director career progression and to identify meaningful differences between the subject models.

Source of Commission. When considering the measurement variable "Source of Commission", a meaningful difference did exist between the required and the actual models. The category of Reserve Officer Training Corps (ROTC) had the highest frequency at 66.7 percent, followed by the Air Force Academy with 21.7 percent, the Officer Training School (OTS) with 10 percent, and the US Military Academy with 1.7 percent (Figure 13). Neither the US Naval Academy nor the Direct Commission account for any program director commissions. This is probably due to very few officers with those type of commissions remaining on active duty. Using the 50-10 Rule, it is apparent that the ROTC commission represents a significant difference in that the majority of

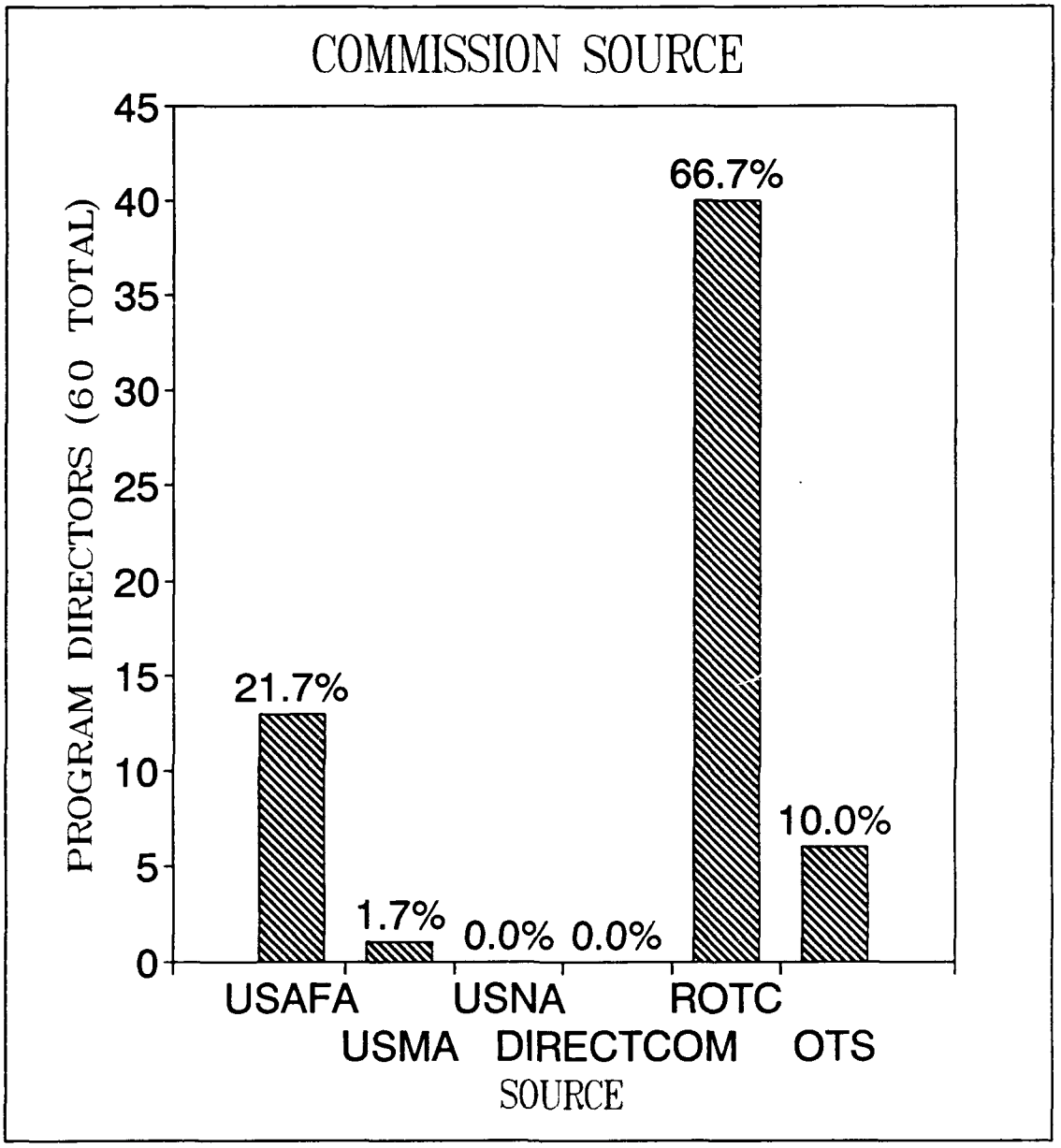

Figure 13. Program Directors' Source of Commission

program director share that commissioning source. The required model does not stipulate a particular source of commission because it lacks acquisition relevance. It would also be highly demotivating to proclaim one source as more desireable than another. Further analysis to compare the frequency distribution against the overall acquisition force and the officer corps in general would be beneficial in determining if a significant deviation indeed does exist. For example 1146 out of all 5460 O-6's (21 percent) are Air Force Academy graduates (7). Air Force Academy commissions are held constant by congressional constraints. ROTC and OTS commissions numbers vary according to budget and accession requirements, thus determining the percentages of Academy commissions. One might expect that because the commissioning dates of the program directors fall within the period of 1961 to 1974, that ROTC and OTS commissions increased due to the Vietnam War. It is not possible, however, to determine from th data currently available, what percentages of officers from each commissioning source progressed through the ranks. Such information would permit a determination of which commissioning source provided the greatest opportunity for advancement and selection as program director.

Rank Structure. When comparing the variable "Current Rank", a meaningful difference did not exist when evaluated under the premise of the 50-10 Rule. Every program director

met the required model criteria of colonel-select or higher in rank (Figure 14). The program director is a highly demanding and responsible position. The AMPDP is designed to provide the career progression model for acquisition officers that will enable possible advancement to colonel and selection as program director. The breakout of rank among the sixty program directors is interesting. Only one officer is a major general and four are brigadier generals. With extremely large-dollar programs, it is obvious that the Air Force places great responsibility upon the remaining 55 colonel program directors.

Secondary Zone Promotions. When considering the variable "Secondary Zone Promotion", a meaningful difference was indicated according to the 50-10 Rule. Below-the-Zone (BTZ) promotion occurred during 66.7 percent of the program directors' careers (Figure 15). The required model did not specify a BTZ criteria directly. However, because the majority of program directors had at least one early promotion it was determined that BTZ promotion was a likely enhancement for potential program director selection. This is even more meaningful when one realizes that a very small percentage of officer are promoted in the secondary zone, 1.5 percent per majors' board for example. Over 43 percent of all Air Force colonels have had at least one BTZ promotion (7). The AMPDP is designed to provide challenging opportunities for high-potential officers (8.2).

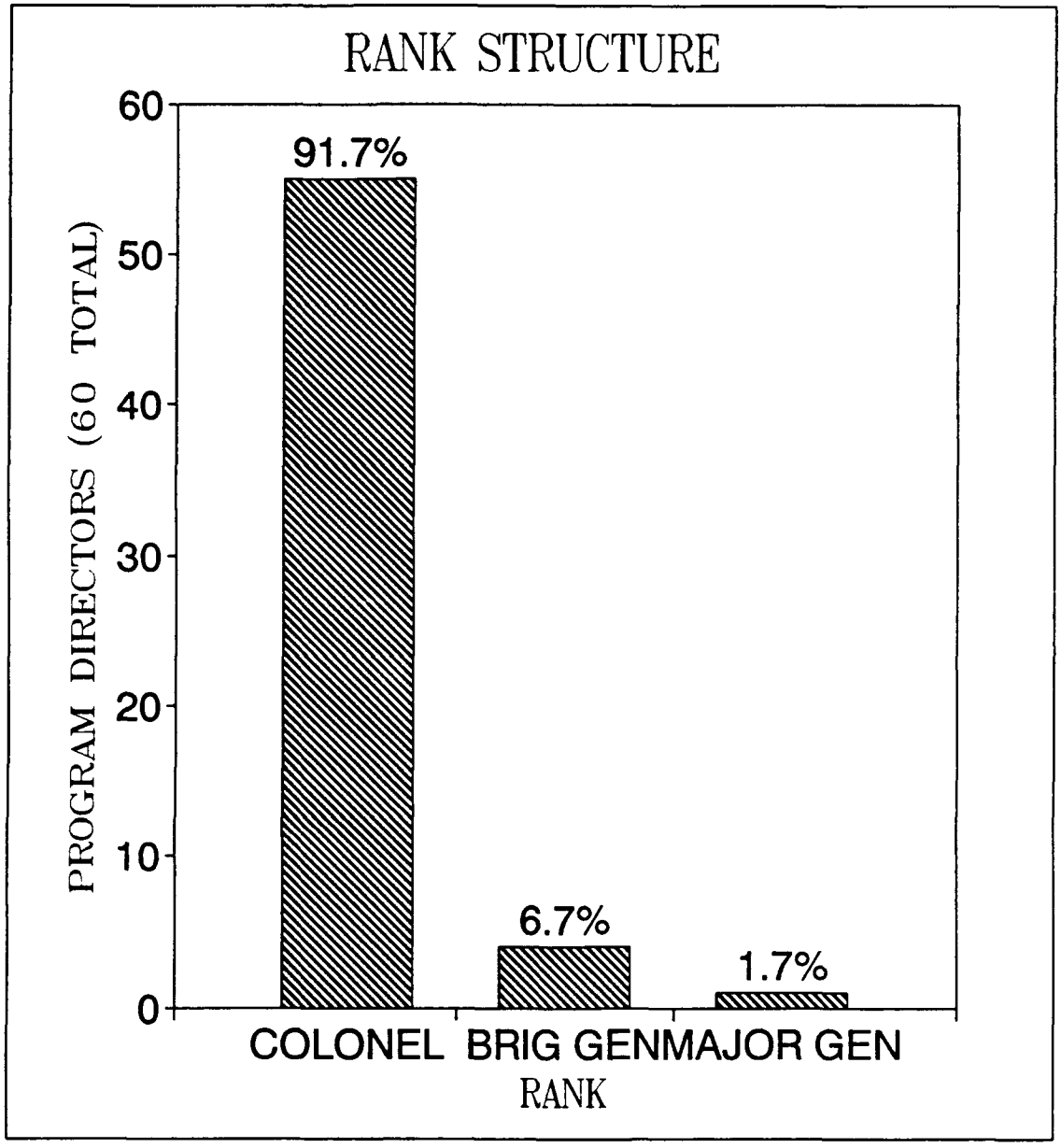

Figure 14. Program Director Rank Structure

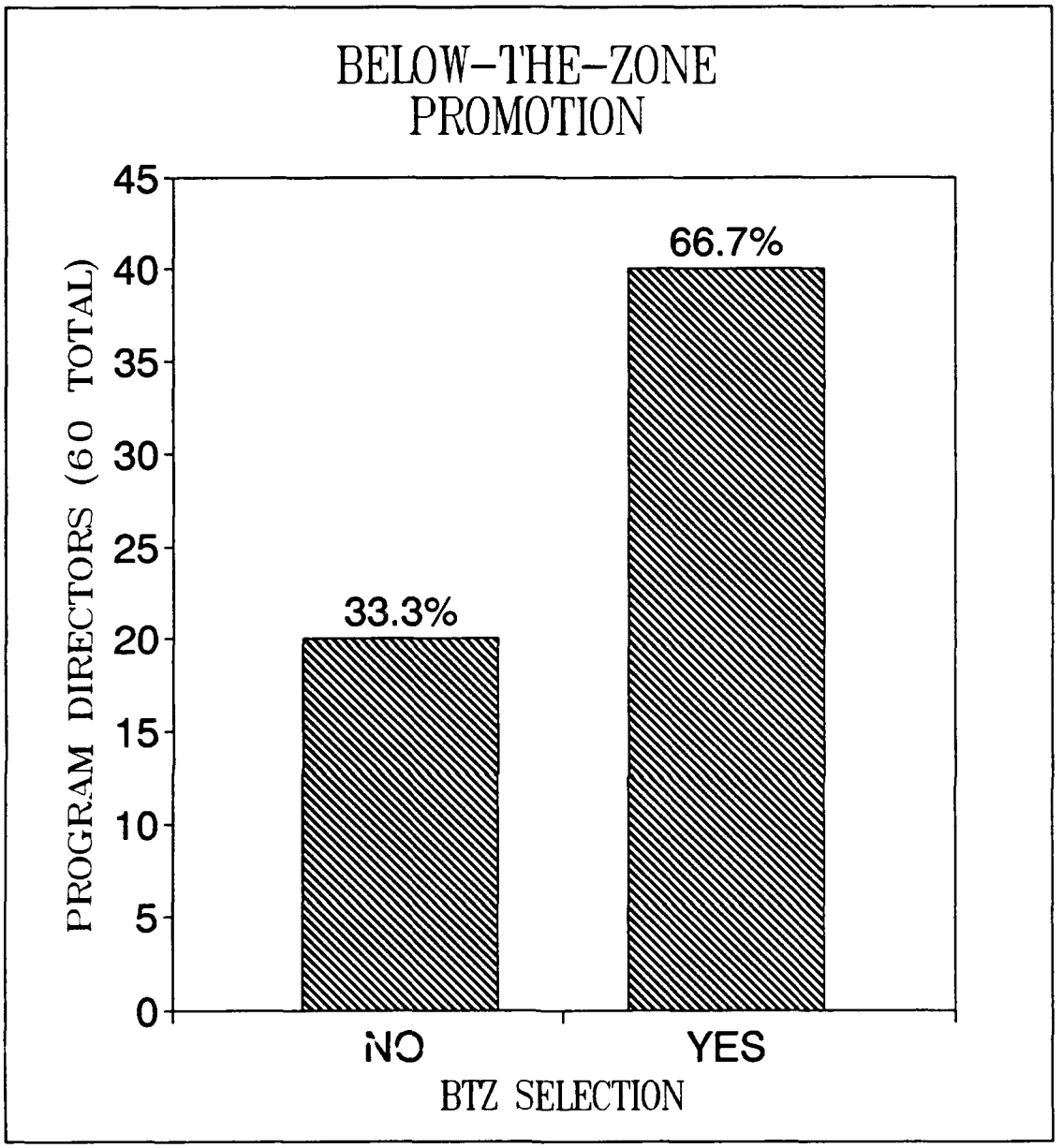

Figure 15. Program Directors Having Secondary Zone Promotions

Accelerated promotions are the Air Force's way of identifying such officers. Thus, BTZ promotions coincide with the special career monitoring that the AMPDP's AML and SAML provide. It appears that secondary zone promotions definitely enhance an officer's opportunity for selection for program director duties. Although a meaningful difference was indicated, BTZ promotion is not directly related to acquisition and should therefore only be used to describe the actual model, not to change the required model criteria.

Aeronautical Rating. No significance difference between the required and the actual model existed when comparing the variable "Aeronautical Rating". The required model did not specifiy an aeronautical rating criterion. The actual model revealed that only 35 percent of the program directors were rated officers with 19 as pilots and 1 as a navigator (Figure 16). It appears that being a rated officer does not significantly enhance an officer's chances for program director selection under the 50-10 Rule. Further comparison against the ratio of rated to non-rated officers in the acquisition career fields and relative to total Air Force officers would show any disproportion between groups. Currently 49 percent of all Air Force colonels are rated, with 41 percent as pilots and 8 percent as navigators (7). The overall Air Force officer corp has about 30 percent rated officers (12:C-5,41). This tends to

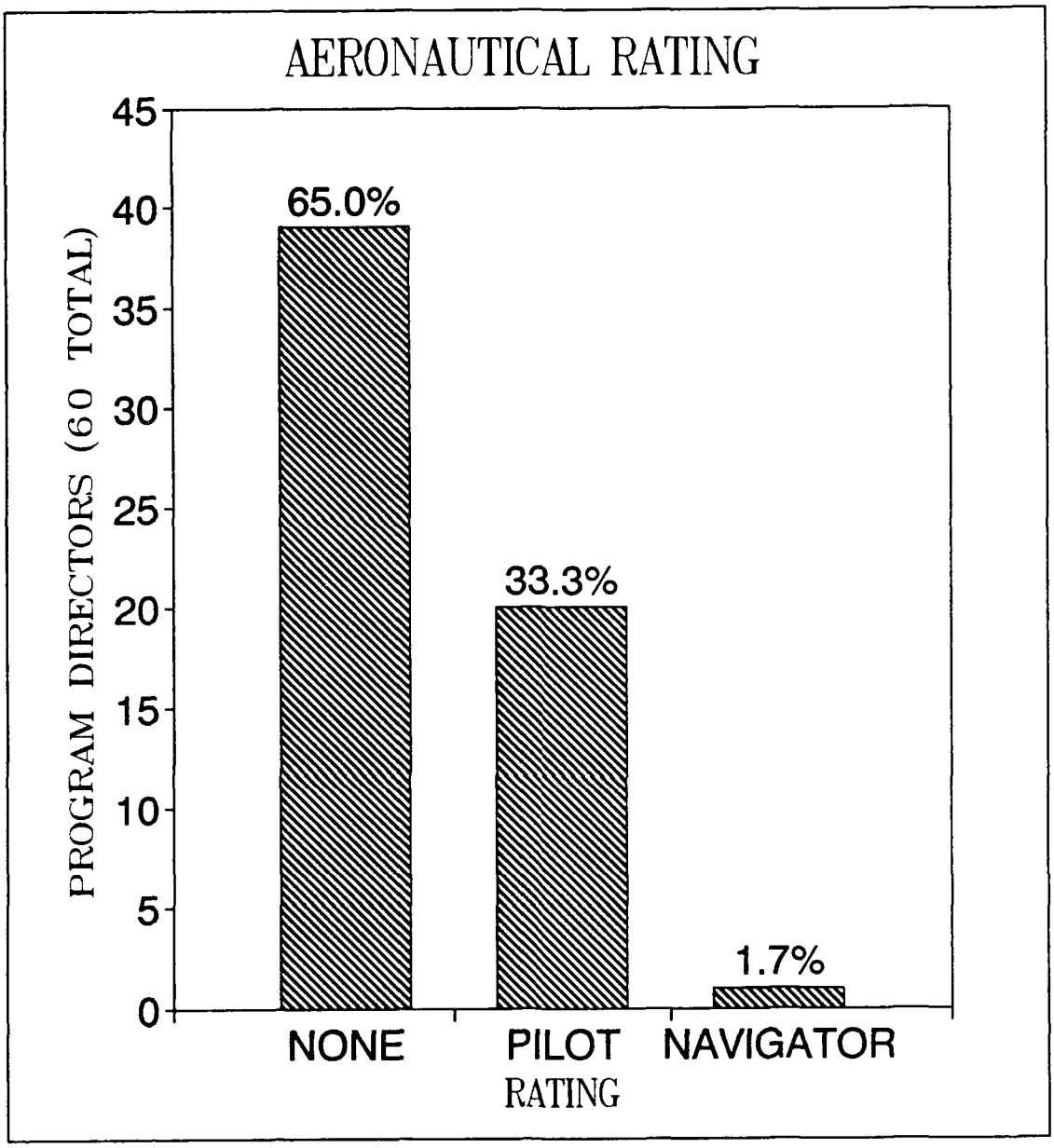

Figure 16. Number of Rated Program Directors

support the assumption that being rated does not significantly enhance an officer's potential for program director selection.

Operational Assignment Other than Aero Rating. When comparing the measurement variable "Operational Tour Other than Aero-rating", a meaningful difference was identified under the 50-10 Rule. Although the required model does not specify mandatory operational assignments, the AMPDP clearly states that "operational experience . . . is highly desireable" and that "operational experience will be weighed heavily in the selection process" (8:2,10). The required model also provides credit for one year of operational experience to fulfill one of the total experience options included in the certification requirements (8:6). The actual model analysis revealed that only 8.3 percent of the program directors had an operational tour other than signified by an aero-rating (Figure 17). Of the 5 program directors who did have an operational tour, all were non-rated.

When the 21 rated program directors are included the total officers with operational experience rises to 26 or 43.3 percent. Under the 50-10 Rule, there is still a meaningful difference between the required model, which states that such experience is highly desireable, and the actual model value, which indicates that over 50 percent do not have operational experience.

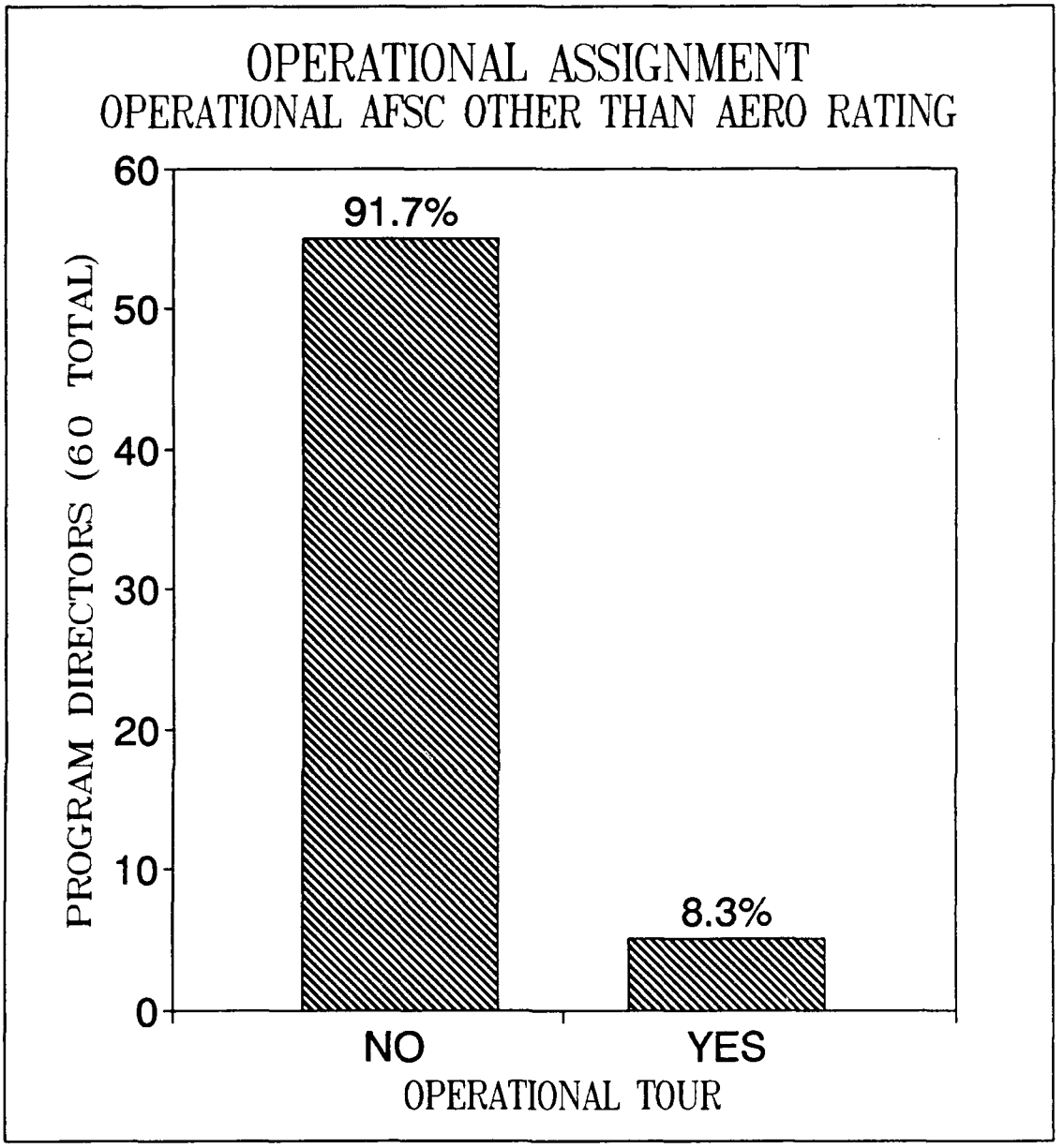

Figure 17. Program Directors Having Operational Experience (Excluding Aeronautical Ratings)

Operational experience has been defined as the operation, support, and maintenance of a weapon system (8:5). The support and maintenance of a weapon system is additionally classified as acquisition experience and creditable to the 8 year total acquisition experience requirement (8:3). With such an emphasis on operational experience of one form or another, it appears there is a significant difference between the models and the difference is acquisition-pertinent by definition. These findings appear to indicate that an operational assignment has little actual impact on program director selection.

Combat Experience. When comparing the measurement variable "Combat", no meaningful differences were indicated per the 50-10 Rule. The required model did not specifiy a combat criteria and the actual model indicated that 60 percent of the program directors did not possess combat experience, specifically during the Vietnam conflict (Figure 18). The models were in basic agreement, neither supporting combat duty as a significant or acquisition-pertinent criteria that potentially enhanced an officer's selection for a program director position. A common-sense check might lead one to believe that combat experience must be important. A cross-tabulation against rated program directors reveals that 20 of the 21 rated officers saw combat along with 4 of the non-rated program directors. It is not surprising that the combat ratio is close to that of

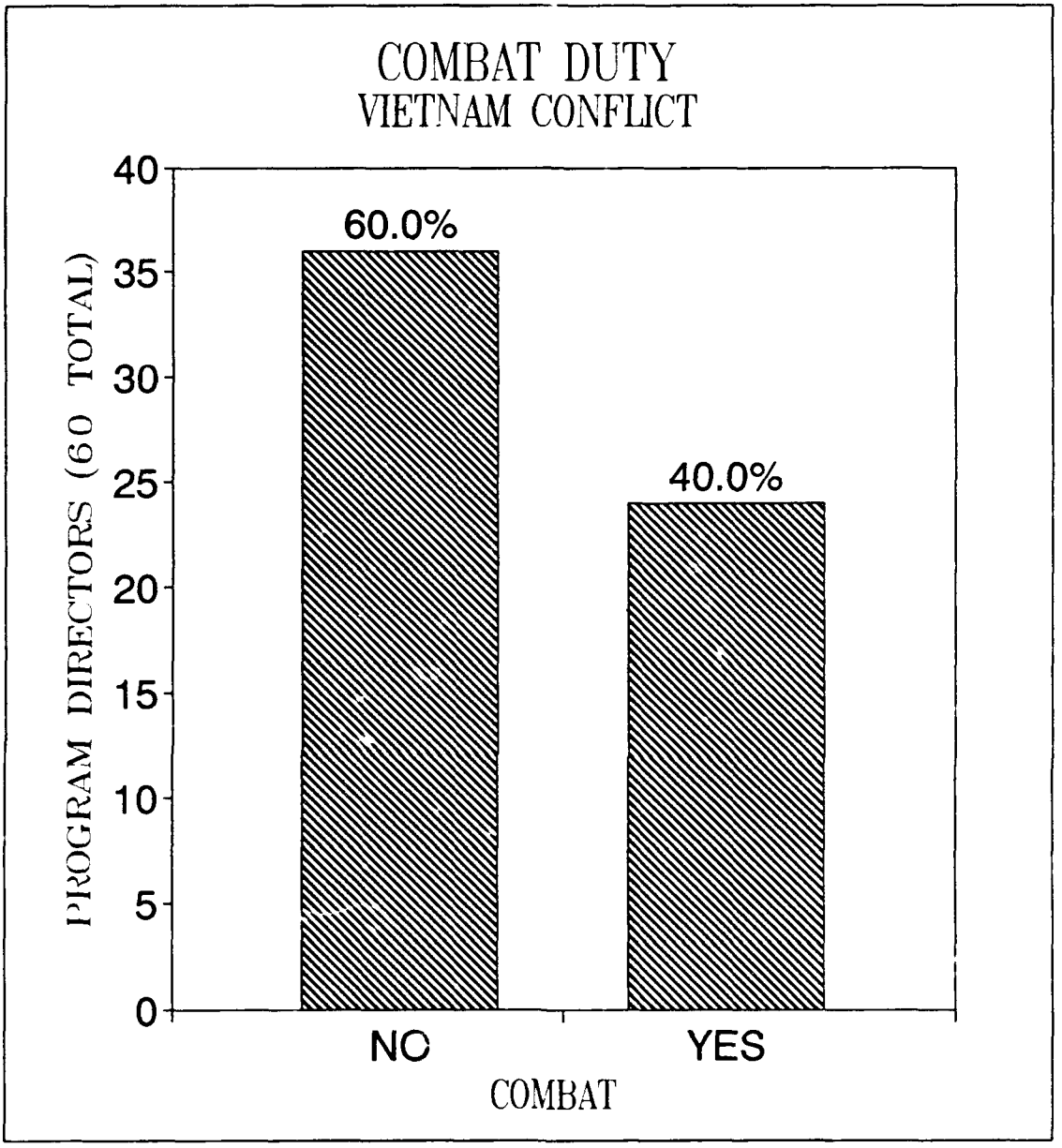

Figure 18. Program Directors Having Combat Experience

the rated ratio. The opportunity for combat duty appears naturally greater in the rated force, when the various rated missions are considered. Further analysis of rated officers in general, would be neccessary to determine if the proportion of rated program directors with combat duty (95 percent), exceeds the the overall Air Force ratio for rated combat duty.

The data does suggest some reasons for the importance of combat experience. First, combat duty indicates experience in dealing with constantly changing situations under a great deal of pressure. Second, a combat tour is a relatively quick way to win medals and ribbons, which help make an impressive record and official photo.

Highest Staff Position. When considering the measurement variable "Highest Level Staff Assignment", no meaningful difference between the required model and the actual model existed. The required model outlines the need for a 2 year headquarters tour at the Major Command (MAJCOM) level or higher. Only 8.3 percent of the program directors had no such assignment (Figure 19). This is under the 10 percent significance criteria established in the 50-10 Rule. It is interesting to note that within the group of program directors that had a staff tour, 65 percent were either Headquarters Air Force (HAF) or some DOD staff. Because the majority had a HAF/DOD tour, it is assumed that such an assignment enhances an officer's possibility of

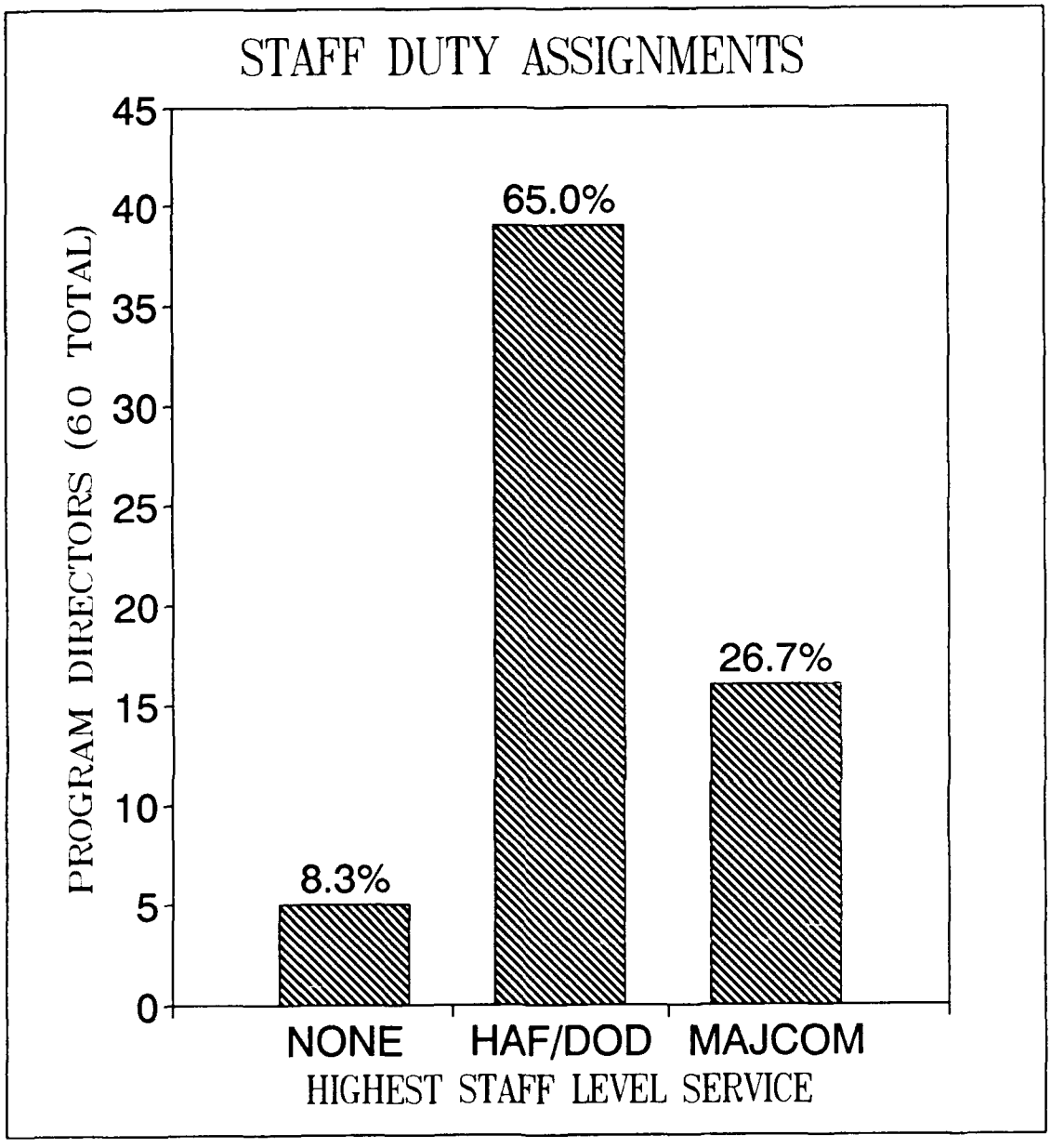

Figure 19. Program Director's Highest Staff Position

program director selection. While no meaningful difference was indicated between the models, it is apparent that a higher headquarters tour was important. Generally, the higher the level of the assignment, the better the chances of progression and eventual program director selection. Such staff tours provide the potential program director with needed career visibility and broaden the officer's level of military experience.

Joint Specialty Officer. No meaningful differences were indicated when considering the variable "Joint Specialty Officer (JSO) Designation". Under the premise of the 50-10 Rule, the 45 percent of program directors coded as JSO was insufficient to identify a meaningful difference (Figure 20). Though not to be considered a direct requirement for program director, recent Congressional guidance concerning general officer selection mandates a JSO designation. In fact, just over 42 percent of all O-6's have JSO designations (7). The AMPDP seeks to develop officers capable of senior acquisition positions. These include those higher up the chain than program director, such as Program Executive Officer (PEO). It logically follows then, that some portion of the pool of promotable acquisition professionals must possess the JSO qualification.

System Program Office Assignments. When considering the measurement variable "Number of SPO Assignments", no

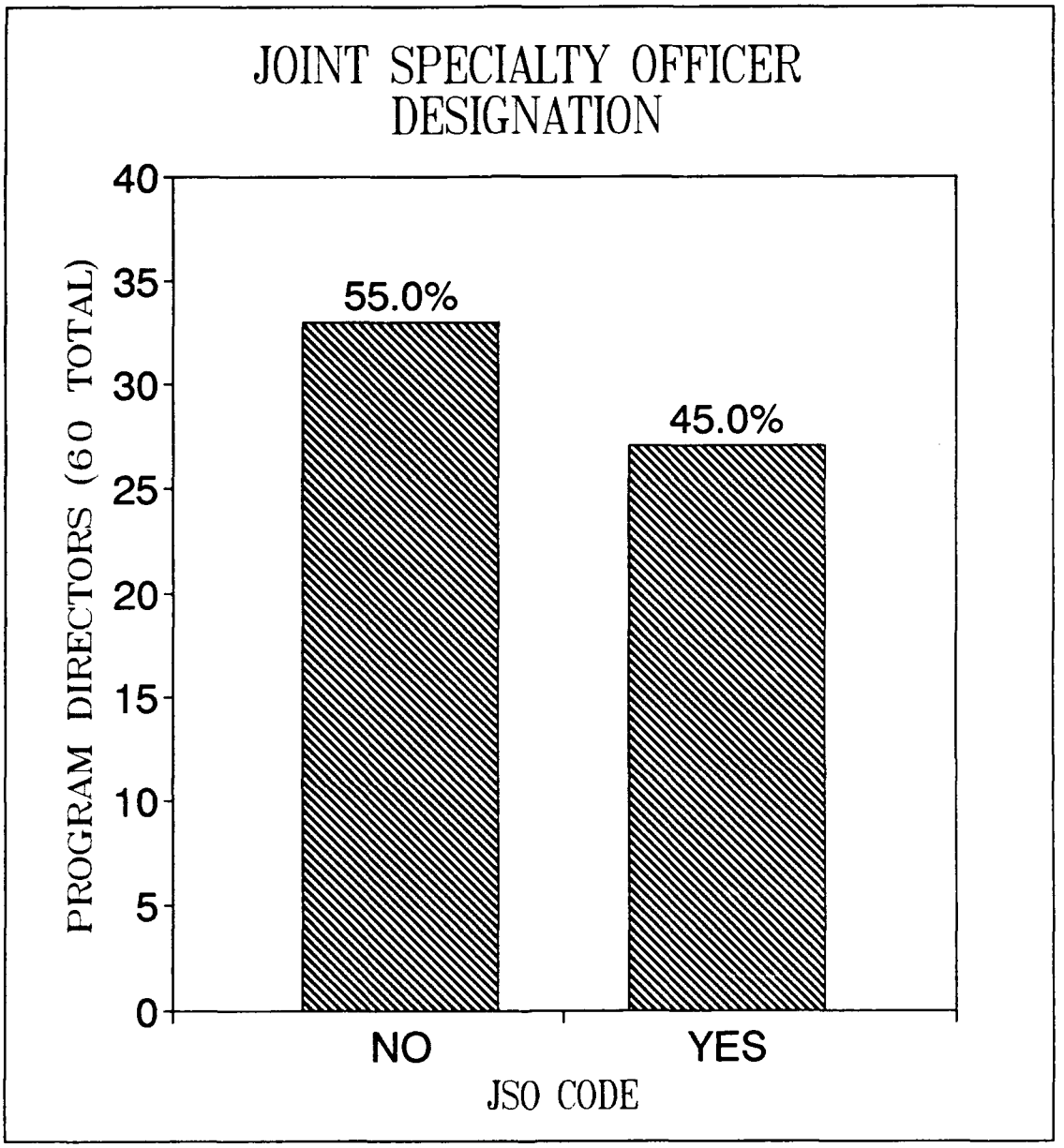

Figure 20. Number of Joint Specialty-Coded Program Directors

meaningful difference was found between the required model and the actual model. Only two program directors (3.3 percent) had no previous SPO assignment before selection (Figure 21). The required model stipulates, as a minimum, 1 SPO assignment. The AMPDP emphasizes that "SPO experience is key for acquisition leadership positions in all acquisition disciplines and organizations" (8:2). It is noted that well over 50 percent (83.4 percent) of the program directors have two or more SPO assignments. Complyin· with the stated importance of SPO experience and the variety of SPO types, the actual model indicates that program director selection is enhanced when two or more SPO assignments are obtained.

System Program Office Experience. When considering the variable "Total Years of SPO Experience", a meaningful difference between the models was indicated under the 50-10 Rule. Ten percent of the program directors did not meet the three year minimum SPO experience requirement (Figure 22). As stated concerning SPO assignments, SPO experience, in general, is critical to the proper development of professional acquisition leadership. The AMPDP requires that two of the three years be as a SPO program manager, the "member who is responsible for cost, schedule, performance, reliability, and maintainability of a system . . ." (8:5). If the program director did not have at least two full years of SPO experience, the program manager requirement was not

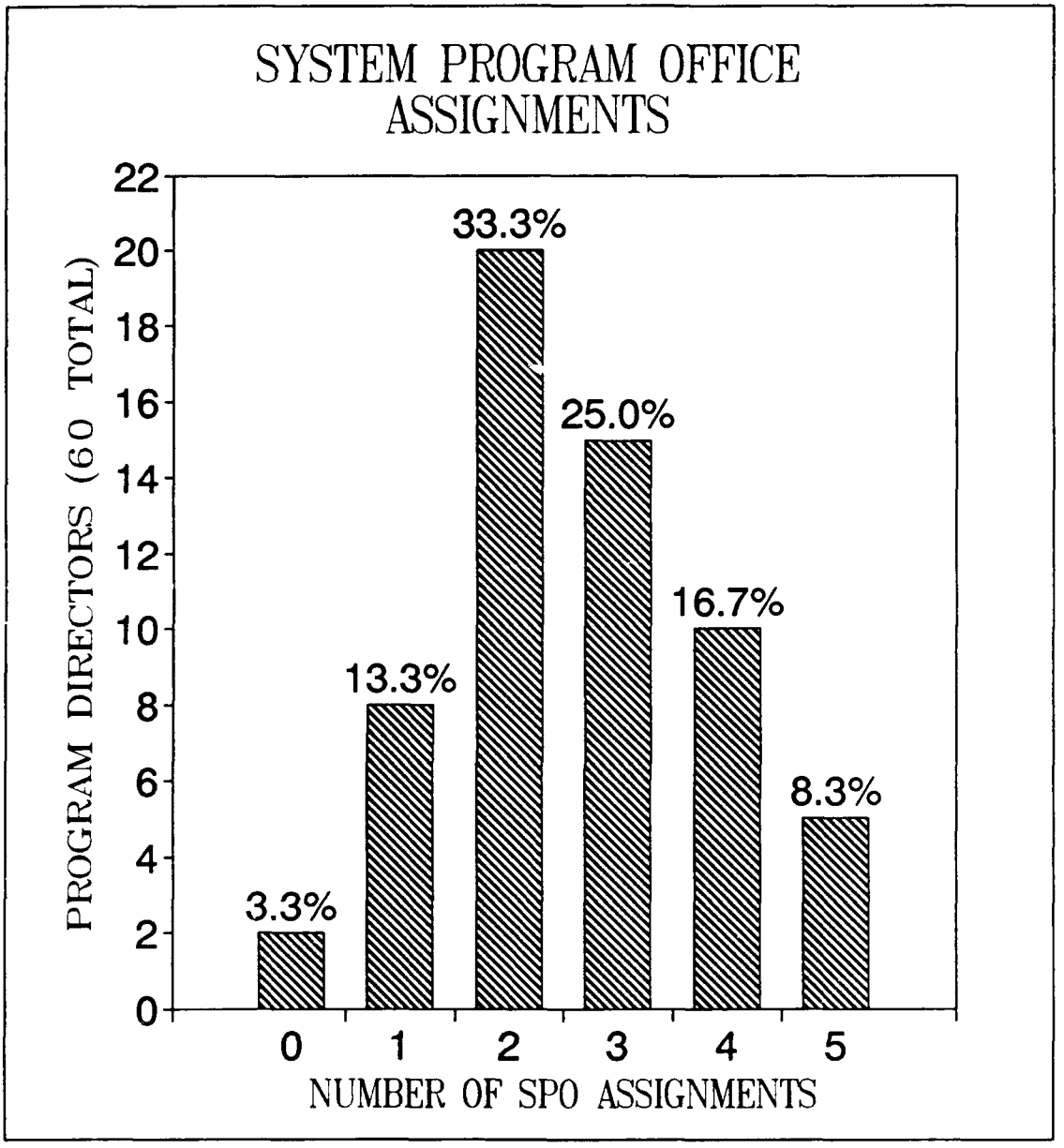

Figure 21. Number of SPO Assignments Held by Program Directors

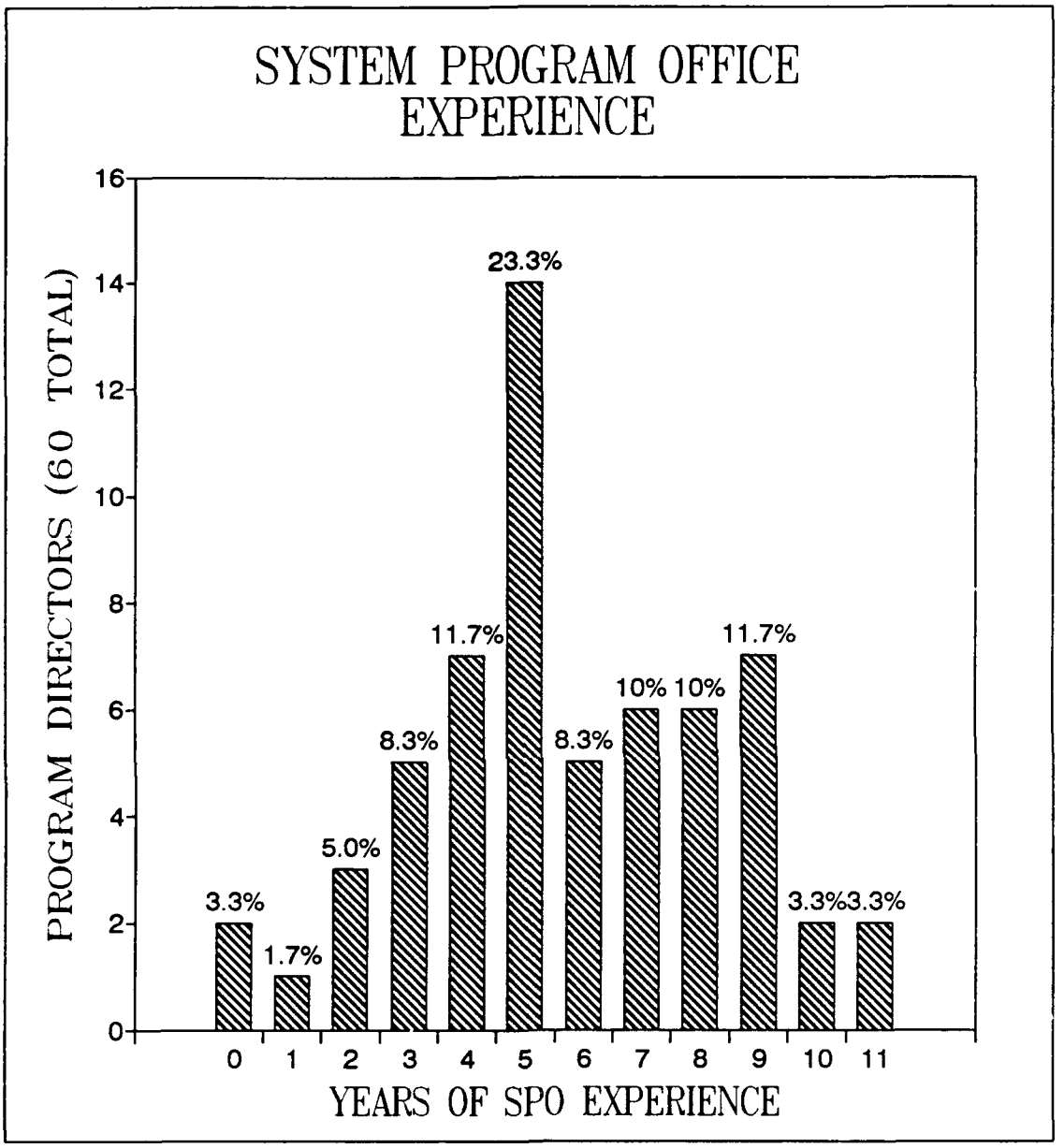

Figure 22. Years of SPO Experience Possessed by Program Directors

fulfilled either. It is noted that program directors possessing 5 years of SPO experience represented 23.3 percent of all program directors, more than double any other year category. Further, over 50 percent (69.9 percent) of the program directors had from five to eleven years of SPO experience. The statistics indicate that having at least five years of SPO experience enhances selection as program director. With the increased emphasis by both Congress and the Air Force, consideration to increase the minimum SPO experience requirement may be warranted.

Acquisition-Other Assignments. A meaningful difference was indicated when considering the measurement variable "Acquisition-Other Assignments". A significant difference under the 50-10 Rule existed because 18.3 percent of the program directors did not have any Acquisition-other assignment (Figure 23). The required model stipulates that a general acquisition assignment is mandatory. The assignments include tours within "AFLC, assignments to other MAJCOM's in support of acquisition, or non-SPO assignments within AFSC" (8:5). Because of the high frequency of compliance with the requirement it is apparent that general acquisition experience, measured as Acquisition-Other experience was significant in enhancing program director selection.

Program Element Monitor. When considering the variable "Program Element Monitor (PEM)", no meaningful difference

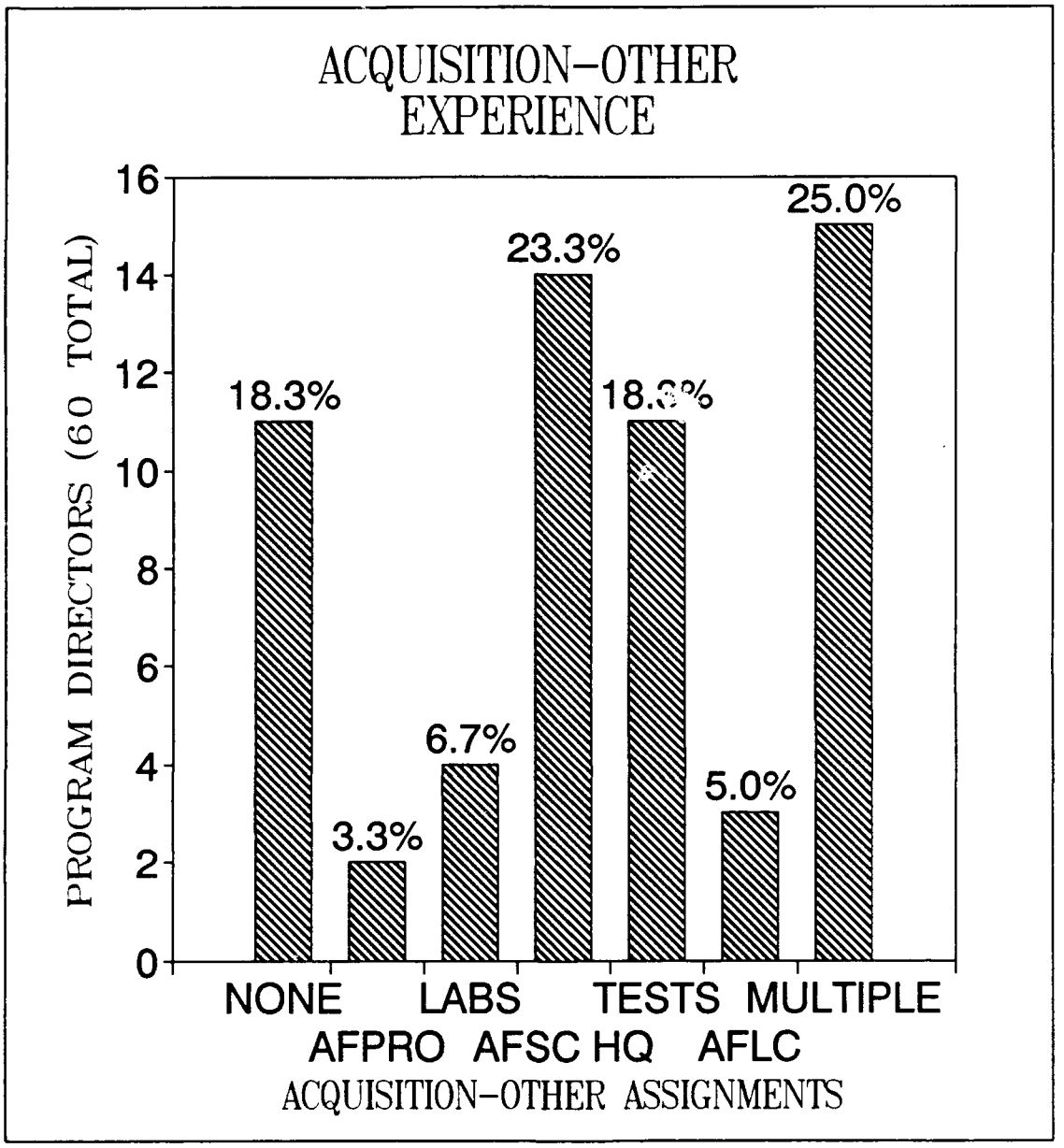

Figure 23. Program Directors Having Acquisition-Other Experience

existed between the required model and the actual model. There was no direct specification of PEM duty in the required model. However, PEM duty does meet the 2 year headquarters tour option outlined in the AMPDP certification requirements. Because less than 50 percent (18.3 percent) of the program directors had been a PEM, it was determined that a PEM assignment alone did not significantly enhance selection for program director (Figure 24). The importance of a high level staff job was previously addressed. A PEM job is a key HAF duty that provides the link between the SPO and the Air Staff, especially from the budget and program direction perspective. The PEM assignment is directly related to the acquisition process and serves to broaden the acquisition officer's military experience. When considered in light of a headquarter's staff tour the PEM experience does impact program director selection.

The Typical Program Director

This final section presents a composite profile of the typical program director in Air Force Systems Command. Based on the variables considered, it provides a general picture of the career pattern most often taken by the program directors studied.

The typical program director is a colonel who is married and has two children. Although not a measurement variable, 59 out of 60 program directors are male. The officer has, at a minimum, completed a graduate degree in

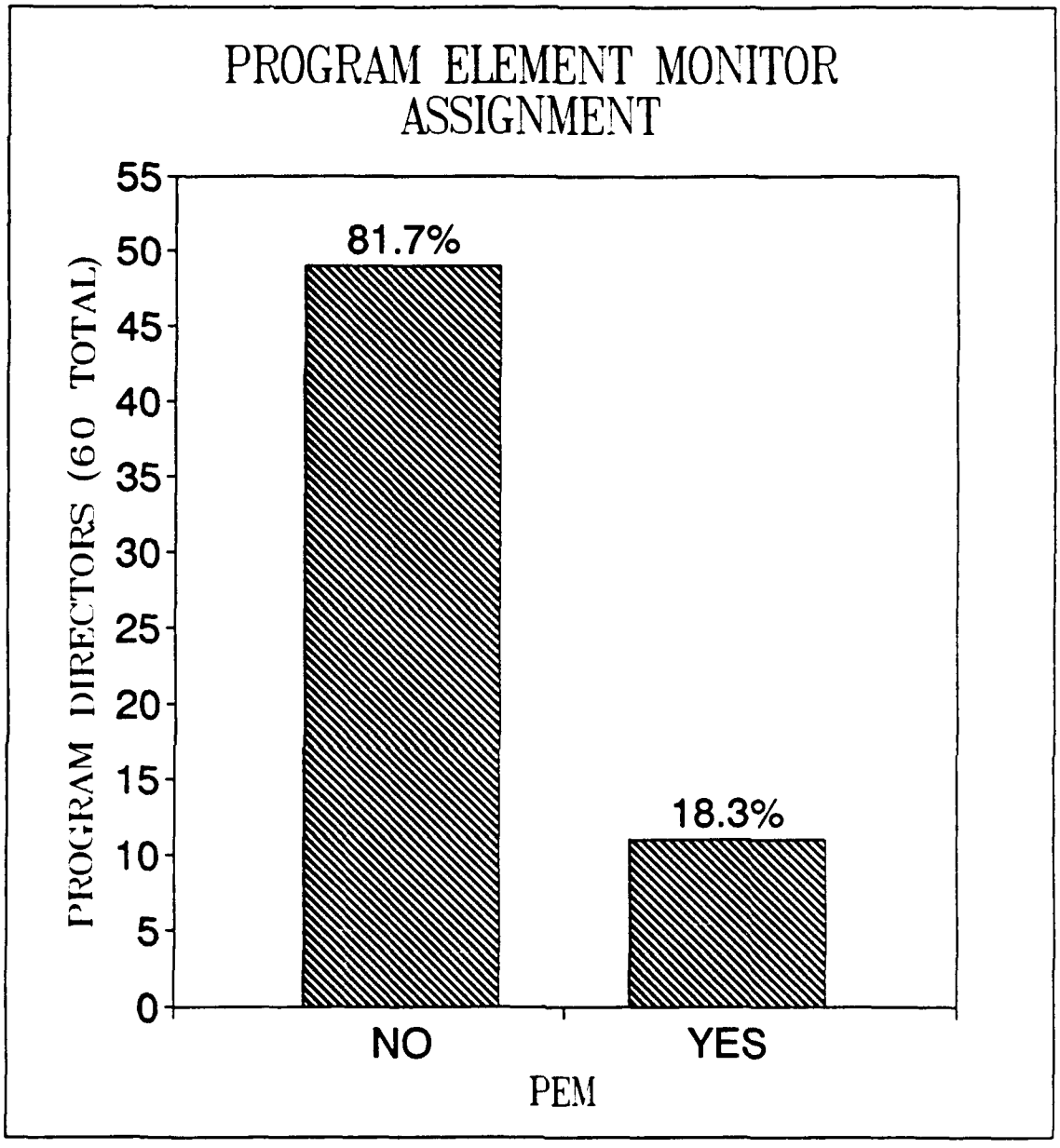

Figure 24. Program Directors Having Program Element Monitor (PEM) Experience

the management field, although his undergraduate degree was primarily technical in nature. Note that the Master's degree was not obtained through AFIT in residence. With regard to military education, the program director has completed Squadron Officer School, Intermediate Service School, and Senior Service School. The Program Management Course or an equivalent acquisition course has not been completed. The commissioning source of the program director was ROTC. The program director has no aeronautical rating and no other form of operational experience. The director also lacks combat experience. Accelerated promotions are very common throughout his career. The officer nearly always had a MAJCOM or higher staff assigment, with most often a tour at Headquarters Air Force or the Department of Defense. In obtaining the HAF tour, the program director had sometimes served as a Program Element Monitor, although this was not a common assignment. He usually does not have a Joint Specialty Officer designation which is a general officer requirement and may indirectly address the program director's future promotion potential. Concerning his acquisition career specifically, the program director had accumulated at least two separate System Program Office assignments which amounted to over five years of SPO experience. In addition, the program director had served in an "Acquisition-Other" type assignment and quite often had experienced multiple tours of this type.

Summary

This chapter has examined the credentials pertinent to program director selection. The credentials were treated as measurement variables and were developed by extracting the qualifications for senior acquisition positions as outlined in AFSCR 36-5, the Acquisition Professional Development Program. In addition, demographic-type variables and other pertinent areas relative to a study of program director qualifications were reviewed. Using these variables, which formed the required model of career progression, the actual data provided by current program director career briefs were analyzed. The associated values of these variables constituted the actual career model and permitted a comparison of the two models. Finally, a composite profile of the typical program director's career path was presented.

V. CONCLUSIONS AND RECOMMENDATIONS

The purpose of this thesis was to investigate the adequacy of the Acquisition Management Professional Development Program as a career model for program director. By so doing, deficiencies would be identified and recommendations formulated to enhance the program.

Summary of the Study

In proposing this research effort, it was recognized that the DoD acquisition system has come under intense fire from the media, Congress, and the country at large. Much focus has centered on the abilities of the program director, the individual given responsibility for the program office and all efforts associated with the procurement of a major weapon system. The need for a career development process is driven by this scrutiny. The AMPDP was developed to meet this need.

The AMPDP outlines the broad required qualifications that are sought in officers selected for senior-level acquisition positions. This study set out to investigate whether the required criteria outlined in AMPDP AFSCR 36-5 are actually met by the current program directors in AF Systems Command. By using the data contained in the Officer Career Briefs of each program director, an actual career model was developed. A comparison of these two models in light of 22 measurement variables would permit the

identification of meaningful differences between the two models.

The Research Proposition

The research proposition was that, there were more than likely, disconnects between the official required model and the actual model. This was felt due to the continuing review of current acquisition policy at the congressional, DoD, and Air Force levels.

By comparing variables such ranging from formal and professional education to acquisition experience and military experience in general, between the two models, meaningful differences were identified and the research proposition supported.

Conclusions

From this research effort, it was observed that several meaningful differences did exist between the required and the actual models. In fact, 8 out of 22 variables were found to have significant differences. These results indicate that the AMPDP does not precisely map or correlate with the actual career progression of current program directors and that changes to either the required model or to program director selection should be considered.

The results of this research must be interpreted with extreme care. Although the findings show that the two models have some meaningful differences at this time, it is important to realize that any development program has a

learning curve that requires time for all aspects to be incorporated. For example, the study did not determine if any current program director or any eligible officer off the SAML presently meets every criterion. It is possible that younger officers will, upon completion of the certification levels, present no meaningful disconnects from the required model.

It is also important to remember that the AMPDP seeks to provide a broad career program, outlining a well-rounded development process. To focus on one variable that resulted in a meaningful difference and thus declare that the AMPDP does not provide a reasonable career path is erroneous. Program director selection does not hinge on any one aspect of an individual's qualifications. Because the research was conducted in the absence of Officer Effectiveness Reports (OER) or more recently, the Officer Performance Reports (OPR), the program directors' entire career background is not fully known. Selection for promotion or senior-level positions is largely determined not only on breadth of background, but understandably, on the level of performance. The OER/OPR data are highly sensitive to Air Force officers and were not available for this study. For the purpose of this research, OER/OPR history was held constant and all variables were considered and compared without knowledge of the OER/OPR data. An initial assumption taken in this study was that the Officer Career Briefs were accurate in that they represent an officer's official record. It may be the

case that some program director's had not kept theirs updated. Training, such as the Program Management Course may not have been placed into the data base if recently completed. The lack of the OER/OPR data and confirmation of career brief entries further emphasizes the importance of keeping the results of this particular effort in perspective.

The specific areas identified as having meaningful differences between the required model and the actual model are as follows:

1. Undergraduate Area of Study,
2. Senior Service School Completion,
3. Program Management Course Completion,
4. Source of Commission,
5. Secondary Zone Promotion,
6. Operational Experience excluding Aero-Rating,
7. Years of SPO Experience,
8. Acquisition-Other Experience.

These areas that resulted in meaningful differences, support the ongoing review efforts that are seeking to better the professional development of our acquisition personnel.

Recommendations

This research effort has shown that there are meaningful differences between the required model of program director credentials as outlined in the AMPDP and those qualifications actually held by the current program directors in AFSC. This information can be of great value in helping to refine the professional development program for acquisition officers. The determination of a viable career model is important to both junior acquisition

officers and to senior-level officer whose responsibility is to select program directors. For junior officers, knowledge of the criteria for program director selection can provide the framework for establishing a long range plan to identify specific areas of his or her career that should receive special attention to enhance selection potential. For the senior officer, a career model permits the evaluation of officers being consider for senior acquisition positions such as program director. The career model, however, can only be of value if it is kept current and accurate.

It is recommended that the variables that were identified as having meaningful differences be reviewed in detail to determine whether the requirement is either neccessary at all or whether it is over or under stated. A definite decision should be reached and the AMPDP adjusted accordingly. Acquisition personnel and the Air Force itself, can ill-afford a haphazard or inaccurate career model that fails to properly develop officers in pertinent, critical areas. Budget constraints that limit assignment flexibility and the neccessity to develop a professional acquisition workforce quickly are both primary drivers for an efficient and effective career model.

It would be useful to publicly report the findings of this study to demonstrate the applicability of the AMPDP to program director career progression. Although some meaningful differences were identified, the combination of the two models, as well as the composite profile developed,

would serve to highlight to acquisition personnel, Congress, and the public, the efforts being taken to insure adequate professional development. Possible avenues to publicize these findings would include the Program Manager, a DSMC periodical, or an AFSC Commander's newsletter or briefing team.

Recommendations for Future Study

The researcher discovered that many related questions remain unanswered and await the concerned researcher. The following discussion includes areas that should be studied to provide greater insight into the professional development of the acquisition officer. Many current reform efforts at both the congressional and DoD levels include revisions to the professional development programs for acquisition personnel. One such reform is a bill sponsored by Congressman Mavroules addressing the development of an Acquisition Corp. It outlines specific educational and acquisition experience requirements that potentially have a direct impact of the structure of Systems Command's AMPDP. A comparison between current program directors and the Mavroules "required model" would be very useful and timely.

There has also been a natural maturation of the AMPDP. A revised and expanded AMPDP is currently in draft. The ramifications of the adjustments in requirements should be reviewed.

Because the AMPDP is a building-block process, officers who are at lower levels in the program should be evaluated. For example, it would be useful to examine those officers on the AML and SAML. These officers are subjected to special career monitoring and job selection. A comparison of their qualifications against the required model would be informative and also demonstrate the actual career progression of acquisition officers who have developed primarily under the guidance of the AMPDP.

In addition to these different research areas, evaluation of additional variables should be considered for analysis in seeking other determinants of program director selection. This may involve additional sources of data beyond the officer briefs used in this study. The OER/OPR data is one suggested source if it can be made available. Though held constant in this study, it is believed to be a major consideration by both promotion and program director selection boards. Another source would be personal interviews with senior acquisition executives such as the AFSC Commander, the SEA, and the PEOs. Time did not permit these interviews for this study. They would provide a more complete picture of the emphasis placed on specific criterion and a greater insight into the program director selection process as well as the AML/SAML selection.

PREPARED: 14MAY90 *** OFFICER PERSONNEL BRIEF *** OFFICE: SYS/DPO TRANS: 216445G00HE05 OHDP000025

NAME: [redacted] SSAN: [redacted] GRADE: COL DISP IND: 1 RECORD STATUS: 10 / 10-ACTIVE N

******* GRADE DATA *******
TEMP PERM DOR EFF-DT
COL 01OCT89 01OCT89
COL 01OCT89 01OCT89

***** PROMOTION DATA ****
PROJ-TEMP-GRADE:
PROM-SEQ-NR/YR:
PROJ-TEMP-GR-DOR:
PROJ-PERM-GRADE:
COMP-CATEGORY: LINE
BTZ-GRADES: MAJ,LTC&COL
TEMP-SEL: ( ) CONS: (O)
PERM-SEL: ( ) CONS: (O)

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TAFMSD: 10SEP70
PLSD/TYSD: 10SEP70
PAY-DATE: 12JUN69
EAD-DATE: 10SEP70
PROM-ELG-DT: 000000
GCASD:
BASE-RET-DT: 10SEP70
COMPONENT: REG
COMMISSION: ROTC DG
REGAF-ACCPT: 13NOV70
ADSCD-1: 30SEP91
ADSC-RSN-1: 10 PROM
ADSCD-2: 890616/07 ADSCD-3: 870730/11
AFIT-PRG-ADSC-ID:

** AFSC DATA **
DAFSC: 0029
PAFSC: 0029
2AFSC: 2716
3AFSC: 2825

SEPARATION DATA
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PROJ-EFF:
APPL-DT:
CHAR-DIS:
FORCE-ADJ:
SEL-SVC-CD: 62
SDN-REG:

********** PERSONAL DATA ***
SEX/RACE/ETHNIC-GP / BIRTH DATE: M / CAU / N
MARITAL-STATUS/TOT-DEPNS/SEX-YR: M / 04 F7
SSAN-SPOUSE / HOME-RECORD: SSAN
DUTY-PHONE / UNFAVOR-INFO-ID: 4952
SEC-CLE/INV /INV-DT /RELIGION: TS SCI /SB
PRP-STAT/DT / NONCONUS-RES: NOT APPL
SPECIAL-EXPERIENCE-ID (1ST-8TH): EZX EYK C30
PHOTO-DT/LANG-ID-1&2/LAPT-SCORE: 20JUL87 / N
PL-ENT-AD /BIRTH PLACE: CCSB / W

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ADDL-AERO-RTG:
AERO-RTG-DATE:
AVN-SVC-CD/DT:

MOS-OPS-FLY:
TOTAL-FLY-HRS:
TOTAL-JET-HRS:
RATED-POS-ID:
RATED-SUPP-TR:
RTN-TO-FLY-DT:
RATED-SUP-CAT:
RDTM-BKGRND:

AIRCRAFT-HRS-YR
1 NONE
2
3
4
5
6
7
8
9

OVERSEAS HISTORY
START-TOUR-STOP LOC
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- NONE
- NONE
- NONE

OS-ACC-ST: N/A
DD-CONUS: 000000
DEROS/ODSD: 10SEP70
STRD/NBR: 10SEP70/ 0

*** ASSIGNMENT PREFERENCES ***

FORM 90 DT: NOV 82
OS VOL STATUS: VOL
OS 1: BELGIUM BELG
OS 2: UNITED KINGDOM UK
OS 3:
OS TOUR 1: NONE
OS TOUR 2: NONE
OS TOUR 3: NONE
CONUS 1: NONE
CONUS 2: NONE
CONUS 3: NONE
PRIORITY: NONE
DAFSC1/2/3: / /

**** CURRENT
ARR-STA/ DOL
ASG-AVL-CD/D
ASG-LIMS-DTS
3-ASG-LIM/DT
BLK-ASGS/DTS
3RD-BLK-ASG-

F-CATEGORY:
DUTY-STATUS:
DS-EFF/EXP D
RPT-AVL-STAT
DDAFS/EXP-DT
DIR-DY-ASG-R

****ASG SELECTION DATA ******
IN-CYCLE-AVAL-DATE:
IN-CYCLE-CHG-DATE:
HAF-OFFICE-SYMBOL:

SDTM-EXP-CNTR: CORE-ID:
DAFSC/1AFS/2AFS/3AFS
137 136 136 136

****** JOINT DUTY INFORMATION ******
JSO STATUS: FULLY QUAL JSO
JSO STATUS EFF DATE: 8809

** CURRENT ORGANIZATION DATA**
SUB-CMD/2&3PAL: V / VA / VA
DUTY-POS-NBR: 01183300H
PAS / DTY-LOC: LKOHFB4M / MXRD
ORG-ST-ID/FAC: TA / 653000
PROG-ELEM-CD: 72806K
ASG-SEL-DT:
MAJCOM-AREA: CONUS
DET/OL: WOVO

** PROJECTED
PROJ-PAS/STA
PROJ-LOCATIO
DAFSC / RNLT
AAN/SC/2PAL
PROJ-FUNCT-C
2ND-ASGO:
2ND-ASGO-AAN
DY-LOC-2ND-A

**** ACADEMIC DATA ****
LVL SPECIALTY / SCHOOL
DOC DIGITAL ENG OTHER
UCLA CA 76
MAS DIGITAL DATA SYSTE
SYRACUSE U NY

*** PROFESSIONAL MILITARY EDUC **
COURSE METHOD YR
ICAF RESIDENCE 86 1ST
AIR WAR COL SEMINAR 83 2ND
AC & STAFF CORRESPONDENCE 78 3RD
SQ OFF SCH CORRESPONDENCE 75 4TH
5TH

*** PROFESSIONAL SPECIALTY COURSES ***
N83 PROGRAM MGT CRS OF DEF MGT S81
QTT SEE AFR 700-20 CO-820 78
EU3 UPT T/41OT/37OT/38-372 71

***** MERIT AF COM

DUTY ********** DUTY HISTORY **********
EFF-DT DAFSC DUTY TITLE (CURRENT & HISTORY)
05JAN90 0029 PROG DIR COMM AIR SPC MGT SYS
01FEB89 0029 PROGRAM DIRECTOR NORTH WARNING
05MAY88 0029 PROG DIR NORTH WARNING
31JUL86 2996 ASST DEP COMMANDER FOR JSTARS

08JUL85 0940 SENIOR RESEARCH FELLOW
06AUG82 2716 STANDOFF WEAPONS SYSTEM PEM

MAJ ORGANIZATION (CURRENT & HISTORY)* CMD **********
ID DET NBR KIND TYPE LVL LOCATION
SYS WOVO 0000 ELECTRONIC SYSTEMS DIV NAF HANSCOM MA
SYS WNHO 0000 ELECTRONIC SYSTEMS DIV NAF HANSCOM MA
SYS 0000 0000 ELECTRONIC SYSTEMS DIV NAF HANSCOM MA
SYS 0000 0000 ELECTRONIC SYSTEMS DIV NAF HANSCOM MA

ELM STAF 0000 AFELM NDU JCS DD/J FT MCNAIR DC
HAF RDP1 0000 U S AIR FORCE HQ HAF PENTAGON VA

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Appendix A: Sample AF Form 1715, Officer Career Brief

Appendix B: Structured Instrument

Purpose

To provide an objective and consistent method to extract data from Officer Career Briefs. This data will be used in conjunction with a computer spreadsheet program to conduct the proposed comparison of a required program director career model and an actual one.

SECTION I. Personal Background

1. Date of Birth

_____

2. Marital Status

_____ (1) Single

_____ (2) Married

_____ (0) Divorced

3. Number of Children

_____

SECTION II. Academic and Professional Military Education

1. Highest Level of Education

_____ (1) High School

_____ (2) Bachelor's

_____ (3) Master's

_____ (4) Ph.D.

2. Area of undergraduate study

_____ (1) Technical

_____ (2) Management

_____ (3) Other

3. Received Master's through AFIT in Residence

_____ (1) Yes

_____ (2) No

4. Area of graduate study

_____ (1) Technical

_____ (2) Management

_____ (3) Technical and Management

_____ (4) Other

5. Completed Squadron Officer School

_____ (1) Yes

_____ (0) No

6. Completed Intermediate Service School

_____ (1) Yes

_____ (0) No

7. Completed Senior Service School

_____ (1) Air War College

_____ (2) Naval War College

_____ (3) Army War College

_____ (4) ICAF

_____ (5) National War College

_____ (6) None

8. PMC Completed

_____ (1) Program Mgt Course, DSMC or equivalent

_____ (0) None

SECTION III. Military Experience

1. Source of Commission

_____ (1) USAFA

_____ (2) USMA

_____ (3) USNA

_____ (4) Direct Commission

_____ (5) ROTC

_____ (6) OTS/OCS

2. Current Rank

_____

3. Secondary Zone Promotion

_____ (1) Yes

_____ (0) None

4. Aeronautical Rating

_____ (1) Pilot

_____ (2) Navigator

_____ (3) None

5. Operational Rating/Assignment

_____ (1) Yes

_____ (0) No

6. Combat Experience

_____ (1) Yes

_____ (5) No

7. Level of staff position held

_____ (1) HQ USAF/DOD

_____ (2) MAJCOM

_____ (0) None

8. Joint Specialty Officer Designation

_____ (1) Yes

_____ (0) No

9. SPO Assignments prior to program director selection

_____ number

10. Years of SPO experience

_____ number of years

11. Acquisition-Other Assignments

_____ (1) AFPRO/DCAS

_____ (2) Lab/research program/FTD

_____ (3) HQ AFSC

_____ (4) Test Organization (Edwards, 4950th, etc)

_____ (5) AFLC (ALC, HQ)

_____ (6) Mulitple

_____ (7) None

12. Program Element Monitor Assignment

_____ (1) Yes

_____ (2) No

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Vita

Captain Dwyer L. Dennis [redacted] He graduated from Waynesboro Area Senior High School in Waynesboro, Pennslyvania in 1978 and attended the U.S. Air Force Academy, graduating with a Bachelor of Science in June 1983. His first tour of duty was at Hanscom AFB, Massachusetts with the E-3A Airborne Warning and Control System (AWACS) System Program Office. He first served as the program office Air Vehicle Engineer, in charge of all E-3 Residual Tasks closeouts and Air Vehicle Engineering Change Proposals, including an ion fume detector acquisition and an increased gross weight modification for the aircraft. In 1985, he became the Improved Radar Data Correlator Program Manager for the E-3, responsible for the E-3 radar computer upgrades and surveillance improvement program until March 1987. He was then chosen to serve as the Product Division 3-star Commander's Executive Officer and the Assistant to the Commander until entering the School of Systems and Logistics, Air Force Institute of Technology, in May 1989.

[redacted]

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Form Approved
OMB No. 0704-0188

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	September 1990	Master's Thesis

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5. FUNDING NUMBERS

6. AUTHOR(S)
Dwyer L. Dennis, Captain, USAF

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
Air Force Institute of Technology, WPAFB OH 45433-6583

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13. ABSTRACT *(Maximum 200 words)*

The purpose of this research is to provide an evaluation of the Acquisition Management Professional Development Program (AMPDP) with respect to AFSC 0029, Program Director qualifications. The AMPDP is Air Force Systems Command's career model for the acquisition officer. The credentials outlined in the program are identified as the measurement variables to determine the required model. Using Officer Career Briefs of the current program directors, the actual model is constructed and a comparison with the required model is accomplished. The comparison, in light of 22 measurement variables, permitted the identification of meaningful differences between the two models. A program director composite profile is also developed. The findings were that 8 out of 22 variables indicated meaningful differences and that some adjustment to the AMPDP should be considered.

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Acquisition, Program Management, Professional Development, Program Director, Career Development, AMPDP	97
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Unclassified	Unclassified	Unclassified	UL